

AMERICAN RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, MINING, MANUFACTURES.

HENRY V. POOR, Editor.

ESTABLISHED IN 1831.

PUBLISHED WEEKLY BY J. H. SCHULTZ & CO., AT NO. 9 SPRUCE ST., NEW-YORK, AT FIVE DOLLARS PER ANNUM IN ADVANCE.

SECOND QUARTO SERIES, VOL. XI., No. 7.]

SATURDAY, FEBRUARY 17, 1855.

[WHOLE No. 988, VOL. XXVIII.]

MESSRS. ALGAR & STREET, No. 11 Clements Lane, Lombard Street, LONDON, are the authorised European Agents for the Journal.

PRINCIPAL CONTENTS.

Taxing Railroads for the support of Canals...	97
Statistics of New York Railroads.....	98
Pennsylvania Railroad.....	99
Pennsylvania Canal.....	99
South Carolina Railroad.....	99
Journal of Railroad Law.....	100
Anthracite Coal for Locomotives.....	102
Vermont and Massachusetts Railroad.....	102
North East Alabama Railroad.....	102
Trade and Tonnage of the N.Y. Canals.....	104
Railway Management.....	104
Cost of Railroads.....	104
Railroad Reports.....	105
Erie Railroad.....	105
Rock Island Consolidation.....	105
Indianapolis and Cincinnati Railroad.....	106
Philadelphia and Sunbury Railroad.....	106
Schuylkill Navigation Company.....	106
Railroads in Great Britain.....	107
Grand Trunk Railroad.....	108
Fox River Improvement.....	108
Sacramento Valley Railroad.....	109

American Railroad Journal.

PUBLISHED BY J. H. SCHULTZ & CO., No. 9 SPRUCE ST.

New York, Saturday, February 17, 1855.

Shall Our Railroads be Taxed to Support Our Canals?

We give this week the report of the Auditor of the New York Canals. The statistics presented, though but a repetition without great variation of reports of previous years, are always interesting, indicating as they do the movement upon the great artery of the internal commerce of the country.

The report is chiefly note-worthy from its commendation to tax the commerce of the three great railroads connecting the Lakes with tide water,—the Erie, Central and Northern. The argument is based upon the fact that during the past year the tonnage and revenue of the Canals have fallen off, while those of the railroads have increased. The canal revenues, though enormous, are inadequate to meet all the calls it would be convenient to make upon them. More money is wanted, and as the expenditures of the State

Government have heretofore been met from the canal revenues, the Auditor thinks that any hiatus that may occur should be met by levying taxes upon works constructed and owned by private capital.

Admitting for sake of the argument that the canal revenues will, till the enlargement shall be completed, be inadequate to meet all the charges which have been imposed upon them, does this fact sustain the conclusion of the Auditor that the deficiency should be made up by a tax upon railroads? Not at all. Upon what principle are the tolls upon property moved on the canals imposed? As a mode of taxation for the support of the State Government? Certainly not. The only rule observed in the imposition of tolls, is to fix them at a rate that shall produce the greatest income. Now we should like to know upon what principle of justice or common sense, railroads are to make the investment in the canals a paying one, if it is not so in itself? Let us take an extreme illustration and see to what absurdity the doctrine of the Auditor would carry us. Suppose the cost of carriage, on the canal, of a ton of flour from Buffalo to Albany to be twenty dollars; and that the railroads can carry the same quantity for six dollars per ton, are they to be taxed fourteen dollars per ton for the benefit of the canal? Would not the Auditor himself say, "No; I will abandon the canals before I will impose such an enormous tax upon commerce? It would be far better for the State to raise its revenue in some other manner than to destroy the great source of its prosperity." But the amount paid does not affect the question of the expediency of the proposed measure. Were there no tolls, the total movement would be very largely increased, perhaps doubled. A reduction of fifty per cent. would increase the movement perhaps in an equal degree. An increase of tolls either on railroad or canal would diminish the movement, we will assume, in equal ratio. Now we ask the Auditor whether the people of the State cannot far better afford to pay a tax sufficient to defray the expenses of government *with* than *without* the commerce which the canals bring to them? If the tendency of a tax on commerce be to dry up one of the greatest sources of their property, is it not the wise policy to cherish this instrumentality, and to

pay the tax out of what commerce achieves, than to cut off or weaken the greatest source of prosperity, and impoverish themselves in an equal degree? The taxing of a *process* is the last degree of political stultification. Let us secure *results*, and tax these, and not the means,—a step which may render *results* impossible.

But suppose it should turn out that railroads should completely supersede the canals in the carriage of all kinds of merchandize? Nothing would give us greater satisfaction. It would prove that we had taken another step in reducing the cost of transportation, and in abridging labor. It has been supposed that railroads could not compete with the canals in the carriage for instance of breadstuffs. If they can, something is saved to labor. Shall we deny the value of all progress, and stick to an exploded idea simply because it has cost us something? Railroads have destroyed the value of all the turnpikes in the country. Suppose the State had been the owner of one between Albany and Buffalo. To have been consistent, the Auditor should have prohibited railroads, except under a very heavy tax, from carrying freight or passengers between the above points. The argument of the Auditor is that we must maintain a work that is no longer adapted to the wants of commerce, simply on the ground that it has cost us something. Such a doctrine would saddle us with every absurdity that every preceding age has practised. For our part nothing would delight us more than to see the Erie Canal abandoned altogether, as this would only prove that we had hit upon something better to do its work. The more, therefore, that the canal needs protection, the less should it receive it. The necessity of protection implies an inherent weakness in the thing protected. In public works, and in the various industrial interests, protection costs more than it comes to. It is just like building a hot-house in which to raise the sugar cane. We may make in this manner all the sugar we consume, but are we profitably employed in doing so? Is it not better for us to devote ourselves to some employment that will bring us five times the amount of sugar for the same labor, by way of exchange; something that needs no protection; something to which our training, soil, climate, position, &c., &c., fit us to produce.

The stronger the case made out by the Auditor, the stronger the argument against his proposition. The people of New York do not wish to add one-third to the cost of their food, by keeping up a work that has outlived usefulness. By encouraging the improved mode of carriage, they may save quite as much in transportation, as the tax they may have to pay on the outlay for the old one, to maintain which, in itself will always be a burden.

Again, there are reasons of a more general character against the imposition of canal tolls upon our railroads. New York, by the means of the supremacy of her public works has long had the monopoly of the trade of the interior. So long as this trade was confined to water routes, she held it with a secure grasp. But if railroads are to supersede canals, she has lost a considerable portion of that supremacy which has been due to her position. She must now compete for a trade of which she has had the monopoly. Is it wise, under such circumstances, to do any thing to embarrass those works which for the future must guarantee to her her future prosperity? She can only sustain her position by reducing to the lowest limit the cost of transportation. Otherwise a commerce which she has so long controlled will take new routes to new markets.

To tax the movement of commerce exerts a direct tendency to lessen its volume. Our Pennsylvania neighbors have long practised what our present Canal Auditor proposes. We give the result in the words of the late report of the Pennsylvania Railroad Company.

"During the year just closed, our rates, including State tonnage tax, were reduced below a revenue standard upon coal and lumber obtained in the vicinity of the line for the purpose of testing its effects upon the movement of these cheap and heavy products. The result clearly demonstrates that the business of the company and the interests of the interior of the State would be greatly advanced by the removal of the restrictions unwisely imposed by the Legislature—but, subject to the present tax, further encouragement to the heavy traffic and increased facilities for its accommodation, will not be justifiable. The policy of restricting the public usefulness of your road by the continuance of the tonnage tax is worthy of the consideration of an intelligent Legislature. It was originally imposed, not as a bonus for the charter, as contended by some, but as a means of protection to the transporters upon the Main Line of public works; and its operation is, as was intended, to limit the company to a small business at high rates—instead of encouraging a large tonnage by low rates; thus reversing the objects statesmen usually seek when legislating for the interests of their constituents.

As an illustration of the effects of the tax, it may be stated that the demand for gas coal in the Eastern cities is about 250,000 tons per annum. The whole amount carried by the canal lines in 1854, was less than 25,000 tons, and this was carried as back loading for want of other freight. The transportation of coal upon the Pennsylvania Railroad would not have affected this business (as the canal lines would have carried only as much coal as they required for back loading.) But for the purpose of affording an imaginary protection to a profitless traffic, the Pennsylvania Railroad Company is practically prohibited from engaging regularly in the transportation of gas coal, and the Columbia Railroad deprived of the revenues which would be afforded by its transportation; while foreign or neighboring States are permitted to supply the demand which could be readily met from the inexhaustible deposits of Western Pennsylvania. Experience has shown that, instead of preserving the business to the Main Line by these discriminations in its favor,

the through tolls paid by the transporters did not exceed \$135,000—proving that they have had no other influence than to enable rival routes, outside the State, to compete successfully with the Pennsylvania Railroad Company for the trade of the West.

It is urged that the tax is a source of revenue, and that it must be continued on that ground. Apart from the injustice of imposing taxes which bear unequally upon the citizens of the State and retard the improvement upon which the good of the whole essentially depends, it would be far better to avoid useless expenditures by disposing of unprofitable works.

It is not creditable to the intelligence of the age to restrict the business of the only avenue through the State that can compete with the improvements of other States, for the trade of the West, an avenue which is at the same time the principal feeder to the only considerable portion of the Main Line that does, or even can, yield a profit to the State. The Columbia Railroad, as a source of revenue, has, the past year, contributed more than one-half to the gross receipts of the Main Line, and without the business of the Pennsylvania Railroad Company even it would not be a profitable work.

The stockholders of the Pennsylvania Railroad Company, as such, have no interests opposed to the continuance of the tax other than those which are common to every citizen who desires to witness the prosperity of the State and of her chief cities. Its repeal will largely increase the transportation of heavy articles at low charges, but it will not add materially to the net profits of the road. As the through rates are necessarily regulated by the competition of rival lines outside the State, it requires neither argument nor illustration to convince any one that the local trade must necessarily bear the chief burthen of the tax—the through rates being generally below the standard of fair remuneration."

By relieving our railroads of all burdens except the necessary expenses of transportation, we offer a bonus to business now so heavily taxed upon the Pennsylvania line, and can control a large portion of it. Should the people of that State ever come to their senses, of which there seems to be not much probability, then our roads must be left entirely unembarrassed, or they will certainly lose a portion of the traffic they now enjoy.

But unfortunately, the canal has not, and we fear never will be superseded for the transportation of heavy products by any other route or mode of conveyance. The fears of the Auditor are entirely gratuitous. The enlargement which is now in progress, will give to the canal its ancient and unquestioned superiority. That there should be some fluctuation in the amount of its receipts is to be expected. It would have been remarkable if the past year had not shown a falling off. But this fact has nothing to do with the question at issue. We are for letting both the canals and railroads stand upon their own merits. Any interference will prove injurious not only to the works themselves, but still more to the public interests.

Williams' Head Rest.

Mr. J. N. WILLIAMS of Dubuque, Iowa, has shown us a specimen of a head rest recently patented by him, which may be adopted to the cars now in use with great facility. Being attached at one end to the pannel on the side of the car and at the other suspended from the ceiling by a chain, it can be used or dispensed with at pleasure. It is very simple and effective, and can be changed to face in either direction. Specimens can be seen, we understand on the Hudson River and Harlem cars.

Railroads of New York.

We published recently the first part of the report of the State Engineer, and we now give the concluding portions which show the aggregates and averages of the reports made to that Department by the Railroad Companies:

The length of all the railroads in operation in the State is, miles.....	2,724
The length of double track in addition to the above is, miles.....	803
The number of locomotives in use is.....	668
The number of passenger cars in use is.....	1,008
The number of baggage and freight cars in use is.....	7,808
The number of miles run by passenger trains is about.....	7,024,190
The number of miles run by freight trains is.....	4,368,677

Total number of miles run.....	11,392,867
The number of passengers carried is about.....	10,000,000
The whole number of miles traveled by the passengers is.....	479,025,621
The number of tons of freight carried is about.....	2,250,000
The whole number of miles each ton of freight was moved, or the number of tons moved one mile, is.....	301,707 951
The capital stock of 63 roads is.....	\$114,102,200 00
The capital stock paid in is about.....	69,473,458 00
The amount of funded and floating debt is.....	76,264,371 00
The amount paid for construction and equipment is.....	128,649,645 02
The cost of maintenance of way (34 roads reporting this item).....	2,504,041 96
Charged to passenger business.....	1,444,260 96
" freight.....	953,991 00
The cost of repairs of machinery on 19 roads reporting is.....	1,901,412 72
Charged to passenger business.....	893,277 53
" freight.....	901,451 48
The cost of operating on 20 roads reporting is.....	5,802,563 88
Charged to passenger business.....	2,685,179 74
" freight.....	2,515,265 45

The receipts on 19 roads reporting are:	
From passengers.....	\$8,922,419 53
freight.....	8,271,012 85
other sources.....	985,765 10

Total.....	\$18,129,208 38
The payments, other than for construction, on 18 roads were:	

For transportation expenses.....	\$10,315,214 44
interest on debts, 21 roads.....	3,940,360 23
dividends, 6 roads.....	2,237,416 06

Total.....	\$16,492,990 73
------------	-----------------

The average cost of construction and equipment per mile of road of those railroads which have reported these items, has been as follows:

For graduation, masonry and bridges, and superstructure for 2,106 miles of road.....	\$30,453 49
For station buildings, engine houses, and machine shops.....	2,370 27
For land and fencing for do.....	4,290 17
Total expense per mile of construction and equipment for 2,340 miles of road.....	49,859 05

The number of locomotives is one to $3\frac{3}{4}$ miles of road.

The number of passenger cars is one to $2\frac{1}{2}$ miles of road.

The number of freight cars is one to 0.82-100 miles of road.

The average mileage of the passengers for each mile run by the trains, 69.

The average distance traveled by each passenger is nearly 51 miles.

The average speed of the express trains when in motion is 36 miles per hour.

The average number of tons of freight for each mile run by the trains is 71.

The average distance each ton of freight was moved is 107 miles.

The average speed of the freight trains when in motion is 16 miles per hour.

The average weight of the freight trains, exclusive of the weight carried, is 175 tons.

The average receipts per mile of road, are as follows:

From passengers.....	\$4,074 16
Freight.....	3,776 72
Other sources.....	427 28
	<hr/>
	\$8,278 17

The average expenses per mile, \$4,710 14, being 57 per cent. of the receipts.

The receipts per mile run by the trains, are as follows:

From passengers.....	\$1 32
Freight.....	2 02
Passengers, freight, and other sources	1 67
The expenses.....	0 97

The receipts per passenger per mile carried, was 1.95-100 cents.

The receipts per ton of freight carried one mile, 2.79-100 cents.

By comparing the foregoing average expenses with those furnished in the last report, it will be observed—

That the cost of repairs of the track per mile of road, exceeds that of the preceding year nearly 60 per cent., but that the repairs of machinery and operating per mile run by the trains, is about the same as the preceding year.

The number of passengers carried on the cars, as reported, was.....	12,034,487
The number of travelers was about.....	9,000,000
The number of miles traveled was.....	472,848,196
The whole number of passengers injured was.....	30
Of whom were killed.....	12
The whole number of employees injured was.....	108
Of whom were killed.....	67
The whole number of others injured was.....	127
Of whom were killed.....	78
Making the total number injured.....	265
Of whom were killed.....	157

One passenger was killed for every 39,404,016 miles traveled, and one passenger was injured for every 15,761,606 miles traveled.

The classification of these accidents is as follows:

	Pass'gers.	Empl's	Others
	Kld. Inj.	Kld. Inj.	Kld. Inj.
Jumping on or off trains while in motion.....	9	9	3 7
Fell or thrown from the train.....		6	1
Collision of trains.....	5	8	2
Trains thrown from the track.....	4	11	7
Run over while walking or standing on track.....		15	1 64 35
Collisions at road crossings.....			6 5
At work on or standing by trains.....		5	6
Standing on platform.....	3		
Other accidents.....		19	17 8 9
Total.....	12	18	67 41 78 49

It is worthy of the most particular attention of railroad travelers, that not one passenger has

been killed during the last year from causes beyond his own control, although nine millions of passengers have been carried on the cars, an aggregate distance of five hundred millions of miles.

Pennsylvania Railroad.

The report for the year ending 31st December last, shows the business of this company to have been as follows:

RECEIPTS.

From Passengers.....	\$1,292,581 18
" Freight.....	2,026,611 55
" Mails and Expresses.....	189,999 64
	<hr/>
	\$3,409,192 37

—being an increase of \$741,931 88 over 1853.—

The expenditure for the year, was

Running expenses, including tonnage	
State tax.....	\$1,431,659 65
Tolls to connecting roads.....	618,258 88
Interest to Stockholders.....	670,301 53
Interest on bond and other expenses.....	372,889 15
	<hr/>
	3,093,109 21

Leaving as dividend fund..... \$316,083 16

The following statement shows the condition of the company, at date of report.

Capital Stock.....	\$12,104,820 00
Loans.....	6,691,773 54
Bonds and Mortgages on Real Estate.....	247,111 11
Surplus profits.....	287,431 41
	<hr/>
	\$19,331,136 06

Which has been expended as follows:

Grading, Bridging, Masonry to single track.....	\$7,048,886 02
Superstructure.....	2,645,655 33
Engineering & Land Damages.....	784,954 15
	<hr/>
	\$10,479,495 50

Cost of single track.....	\$10,479,495 50
Real Estate at Philadelphia and Pittsburgh.....	\$919,277 77
Graduation and Superstructure to second track.....	2,240,865 71
Buildings.....	1,459,207 71
Rolling Stock.....	2,059,649 27
Telegraph—Altona to Pittsburgh.....	14,249 57
Subscription to Ohio and Pennsylvania Railroad.....	300,000 00
Subscription to Ohio and Indiana Railroad.....	300,000 00
Subscription to Marietta and Cincinnati Railroad.....	650,000 00
Subscription to Maysville and Big Sandy Railroad.....	100,000 00
Subscription to Springfield and Mt. Vernon Railroad.....	100,000 00
Bonds and Notes Payable.....	294,560 27
Balance on hand.....	443,832 26
	<hr/>
	\$19,331,136 06

The road was opened through its entire length, from Harrisburg to Pittsburgh, on the 15th February last. This had to be done, although not quite ready for use at the time, on account of the increased speed adopted on competing roads.—Trains are now run from Philadelphia to Pitts-

burg in 15 and 17 hours. The work on the second track was commenced early in Spring and proceeded with till Autumn, when, in consequence of the money pressure, it had to be suspended.—Sufficient iron has been contracted for to lay the greater part of the second track, and 89 miles, in different places, have been laid. The amount of unfinished work is estimated at \$1,385,000. The arrangements for the carrying of freight are extensive, and sufficient to accommodate a large increase of business.

The greater part of the remainder is devoted to a consideration of the repeal of the duties to the State on freight, and the new railroad connections with the different parts of the Western country.

Receipts of the Main Line of the Pennsylvania Canal for 1854.

The total receipts in 1854, as reported by the Canal Commissioners, for the Main Line, are.....	\$1,179,010 17
Add for State tax paid by Pennsylvania Railroad.....	141,935 24
	<hr/>
	\$1,320,946 41

Deduct reported expenses for same time..... 945,868 13

Net revenue..... \$385,078 28

This is made up from the several Divisions, as follows, viz:

PHILADELPHIA AND COLUMBIA RAILROAD.	
Receipts.....	\$821,524 77
Expenses.....	390,761 77
	<hr/>
	\$430,763 00

MAIN LINE CANAL.	
Receipts.....	\$279,459 53
Expenses.....	216,714 70
	<hr/>
	\$62,745 93

PORTAGE ROAD.	
Expenditure.....	\$338,391 66
Receipts.....	78,025 77
	<hr/>
	\$260,365 89

Deduct loss..... \$233,143 04

Pennsylvania Railroad State tax reported paid..... 141,935 24

\$385,078 28

Annual Report of the South Carolina Railroad Company.

President Caldwell has submitted his annual report to the stockholders, for the year ending the 31st Dec., 1854.

It shows the income for the year from passage, freight, mails, &c., to be..... \$1,363,008 18

And the expense of management, ordinary and extraordinary, equal to 42 12-100 per cent..... 574,146 13

The remainder..... 788,862 05

After providing for the interest on the foreign and domestic debt, and for claims for damages, &c., say..... 206,234 26

And leaving as net income..... 582,627 79

Has afforded two semi-annual dividends of 4 1-2 per cent. each, amounting to..... 330,837 00

And transferred a balance of..... 251,790 19

For the year to the credit of Surplus income, being an excess of \$99,193.18-100 over the balance carried from the legitimate business of the year previous, which, upon reference, will be seen was \$152,592.61-100.

United States Mint.

The annual report of the Directors of the Mint has been laid before Congress. The report gives the annexed statements of deposits and coinage at the various Mints for the year 1854:

PHILADELPHIA.

Gold deposits.....	\$36,269,388 68
Gold Coins struck.....	20,049,799 00
Fine gold bars.....	17,643,270 58
Silver deposits, including purchases.....	4,480,941 14
Silver coinage executed.....	5,873,270 00
Copper coinage.....	42,688 35

Total deposits of Gold and Silver.....\$40,750,129 82

Coinage including Fine Gold Bars.....43,108,977 98

This coinage is comprised in 33,919,921 pieces.

NEW ORLEANS.

Gold deposits.....	\$1,139,135 48
Silver do.....	1,311,703 06
Gold coinage.....	1,274,500 00
Silver do.....	3,246,000 00

Total deposits of Gold and Silver.....\$2,450,838 99

Total coinage of Gold and Silver.....4,520,500 00

This coinage is comprised in 10,332,750 pieces. The coinage exceeds deposits, owing to the amount of bullion remaining over from deposits of the previous year.

DAHLONEGA.

Gold deposits, (including Silver coin, \$1,506 61.....)	\$281,932 09
Total coinage.....	292,760 00

Comprised in 62,228 pieces.

CHARLOTTE.

Gold deposits.....	\$213,606 21
Gold coinage.....	214,652 50

Comprised in 46,578 pieces.

SAN FRANCISCO.

Deposits since 3d April last.....	\$10,404,560 00
Coinage do.....	4,084,207 00
Manufacture of fine bars valued at.....	5,863 16
Unparted bars, prepared, assayed, and stamped.....	5,641,504 05

Total.....\$9,731,574 21

NEW YORK SINCE 10TH OCTOBER LAST.

Deposits to Jan'y 1, 1855.....	\$9,333,200 69
--------------------------------	----------------

(of which \$76,307 are in silver)

Fine bars, prepared, assayed, and stamped.....	2,888,039 18
Transmitted from Philadelphia, and paid out in New York.....	1,050,000 00
Deposited for coins, and transmitted to Philadelphia.....	6,362,565 57

Entire deposit for 1854—Gold.....	\$49,989,222 23
do. do. Silver.....	5,871,753 82

Total coinage.....	60,756,503 82
Number of pieces.....	44,645,000 00

Amount of domestic gold.....	49,217,021 00
Of which amount from California was.....	48,892,794 00

Amount from Australia.....	432,000 00
----------------------------	------------

Amount of silver coin struck and put into circulation in 1853 and 1854.....	17,273,451 00
---	---------------

The coinage charge of the half of one per cent. authorized by the act of Feb. 21, 1853, yielded as follows:

Mint at Philadelphia.....	\$104,853 32
Branch at New Orleans.....	6,272 50
Branch at Dahlonega.....	1,463 80
Branch at Charlotte.....	1,073 60
Branch at San Francisco.....	20,421 03

Total at all Mints for 1854.....\$134,183 91

A change of the copper coinage seems desirable with a view to the substitution of a lighter and more convenient coin for the cumbersome cent now used.

Mr. Snowden thinks the standard weight of silver coinage, as fixed by the act of March 3, 1853, was well chosen.

Journal of Railroad Law.

ARTICLES OF ASSOCIATION.

By the general Railroad Law of the State of New York, it is provided among other things that in the articles of association, which form the foundation of companies organized under that law, each subscriber shall state "the number of shares which he agrees to take" in the company whose formation is contemplated by himself and his fellow subscribers.

An agreement "to take" is in itself considered, rather an indefinite expression. Does it or does it not imply as necessary incident, an agreement to pay for that which is taken, or is it a fair interpretation of our Railroad Law, viewing its provisions collectively, especially § 7 subjecting the shares of delinquents to forfeiture, that subscribers agree merely to take shares, and when calls are made, either to pay the sums assessed thereon, as it may best fit them?

In common parlance, he who agrees "to take" a house or store or the like is understood to agree to pay for its value or use as the case may be.—And there would not seem to be much occasion for doubt in this matter, yet there exists a conflict in the decisions of our Supreme Court relating to this question, and in order to prevent uncertainty, it may be well that articles of association under our Railroad Law, should be framed in language somewhat more explicit, than that heretofore usually employed.

In the case of the Northern Railroad Company vs. Miller 100 Barb. 260, our Supreme Court decided that a subscription to the capital stock of a Railroad Corporation, whereby the subscriber promised to take five shares of the stock, subject to the conditions, requirements, liabilities, and benefits of the act of Incorporation, was equivalent to an express promise to pay for the stock as it shall be called for by the Directors. Judge Willard who delivered the opinion in this case maintained that subscriptions like the foregoing one, had been held to amount to express promises in the following, among other cases Spear vs. Crawford, 14 Wend. 20, 2 Hall, 505, Hart and New Haven Railroad Company vs. Kenner, 17 Con. 500, Same vs. Crosswell 5 Hill 383, Mann vs. Currie 2 Barb. 294.

If the subscription in question were not an express promise to pay for stock, the Judge held that it was deemed an implied promise for that purpose, and as such to be proved by the circumstances under which it originated, and that when once so proved, it was followed by the same consequences which attend all contracts. The law imposing a duty to pay for the stock, according to an established principle raised an obligation to pay for it. Leigh's Nisi Prius 3. The corporation which would enforce such a subscription, was in some cases bound to elect between forfeiture of stock, and suing for assessments thereon. Small vs. the Herkimer Man and Hydraulic Cement Company 2 Com. 330. But the authority to forfeit stock in a case like that before the court, was held not to have the Common Law remedy of a suit for the assessment.

But a decision in opposition to the foregoing one has recently been made by the Supreme court

in the case of the Fort Edward and Fort Miller Plank Road Company against Payne 17 Barbour 569, and for certainty in this case we must await the action of the Court of Appeals.

In the last cited case, Judge Hand observed, that "so far as the personal liability of the defendant to pay for the stock for which he had subscribed is put upon an implied promise I believe the position cannot be sustained by authority, as I think will appear by an examination, not only of the cases decided in this State, and cited by Judge Willard in the case of the Northern Railroad Co., vs. Miller, but many others."

EMPLOYMENT OF SURGEONS.

In the year 1847 a man named Higgins, a third class passenger, while getting into a car of the Midland Railway Company, at the Whittaker Station, by the direction of one of the servants of the company, was thrown down by a sudden moving of the train, and the wheels passed over his leg. The railway guard immediately called on Mr. Davis, the usual surgeon of the company, and he, deeming the case a serious one, desired further medical assistance. The son of Mr. Davis was ordered by the station master of the Whittaker Station to procure the service of Mr. Cox, an eminent hospital surgeon at Birmingham, and he accordingly was sent by a special train from Birmingham to Whittaker, where he performed the operation of amputation, upon Higgins.

The company refusing to pay him for his services, he sued them. It was shown at the trial that on three former occasions the company had paid the bills of medical men for attending upon persons injured on their railway; but it did not appear by what particular servants the attendance had been ordered in those cases. On this state of facts it was objected at the trial that a railway company were not liable under these circumstances. First, because, being a corporation, they could only contract under their common seal; secondly, that the authority to enter into such contracts as the present, on behalf of the company, was not incidental to the employment of a station master, and, therefore, they were not bound by his agreement.

The jury found a verdict for the plaintiff; and defendant appealed. It was held that the station master had no power to bind the company by a contract with a surgeon unless he was specially empowered to do so, and that, therefore, Mr. Cox could not recover from the company, (Cox vs. the Midland Railway Co. 5. *Ibid.* 444).

RESPONSIBILITY FOR BRIDGES.

The Shrewsbury and Chester Railroad passes over the river Dee on the same bridge with the Chester and Holyhead Railroad. The former company hire of the latter the right to use the track at that place. Upon one occasion the bridge broke down while the train of the Shrewsbury and Chester Railroad were passing over it. Mr. Grote, a passenger in the train, was injured by it and brought an action against the Chester and Holyhead Company to recover damages for the injuries received by the accident. It was proved on the trial, that the bridge was constructed under the superintendence of an eminent engineer. It was contended that the defendants were therefore not liable, not having themselves been guilty of negligence.

The Court, however, held that the mere fact

that a competent engineer had been employed by the company would not absolve the company from liability; and it appearing that the bridge, however built, was in fact insecure, judgment was given for the plaintiffs. (*Grote vs. the Chester and Holyhead Railway Company*, 5. *Ibid.* 494).

BAGGAGE CARRIED BY PASSENGERS THEMSELVES.
Mrs. Richards took passage on the London and South Coast Railway from Woodgate to Southwark Station, with her baggage consisting in part of a certain dressing case. The dressing case was placed in the same car in which she was, under her seat. The rest of the baggage was taken into another car. When she arrived at Southwark Station she was assisted into a carriage and a part of her baggage put upon it. She discovered, however, after she had got home that the dressing case was missing.

Not being able to find the case, her husband sued the company. He contended that the defendants were bound to deliver safely the dressing case at the station, and the fact of its being under the personal inspection of the passenger could not limit that responsibility. The defendants maintained that there was no delivery of the dressing case to the company. It was always in the custody of the passenger and, therefore, no duty was cast on the company except to convey the passenger safely with the luggage that was delivered to them.

The Court decided that Mrs. Richards was a passenger and the defendants received her and her dressing case which was a part of her luggage to be safely and securely carried to, and delivered at the station at Southwark. The defendants did not use due and proper care about the conveyance of the dressing case, and this was the cause of its loss. The duty of the common carrier implies a warranty, safely and securely to convey and deliver. It is immaterial whether there be negligence or not. The warranty is broken by the non-delivery. The case was therefore decided in favor of the plaintiff. (*Richards vs. London and South Coast Railway Co.*; 6 *Ibid.* 38.)

ANIMALS KILLED.

In the summer of 1848 a Mr. Sharrod had some sheep killed by the engine of the London and Northwestern Railway Company.

It appears that a portion of the fence between Mr. Sharrod's field and the railway track had by some accident been broken down. Mr. Sharrod had a flock of sheep in the field. Some of them got through the gap in the fence and were run over by the engine. It was going at the rate directed by the company and could not be stopped so as to avoid the accident.

Upon this Mr. Sharrod brought an action of trespass against the company.

It was held by the Court that also there had been a mistake made in the form of action brought, yet that the plaintiff was entitled to compensation for the loss of his sheep. Where a master gives the direction and control over a carriage or animal to a rational agent, the master is responsible for want of skill or care of the agent.

In this case the sheep had an excuse for being where they were, having escaped through defect in the fences which the company should have kept up; and the plaintiff's damage was consequent on the wrong of the defendants in letting their fences become out of repair. Therefore,

compensation might be recovered, it was said, against the company by bringing the proper action. (*Sharrod vs. Northwestern Railroad Co.*, 6. *Ibid.* 186.)

IMPRISONMENT OF PASSENGERS.

There is a railway from London to Croydon, in the South part of England, which passes through Sydenham, the present site of the Crystal Palace. Mr. Chilton having been at Sydenham, perhaps to see the Crystal Palace, though that is not material to the case, bought a ticket to return to London paid one shilling, the regular fare, and took his seat in the car. Shortly afterwards conductor Gower came through the car, called for Mr. Chilton's ticket. Mr. Chilton found that he had lost it and told the conductor so.

Conductor Gower said that it was the rule of the company, that the passenger must either present his ticket or pay the regular fare from Croydon to London; no matter where he got in.

Mr. Chilton said that he was willing to pay his fare from Sydenham to London over again, but he refused to pay fare as if he had come all the way from Croydon.

Upon his refusal Mr. Chilton was detained at the station-house after the arrival of the train, and brought this action for false imprisonment.

The court held that the rule requiring the passenger in such a case to pay full fare, as if he had come all the way from Croydon might—as the full fare was only 1s. 3d. be a reasonable rule.—But the Company had no right to detain their passenger to make him pay the amount. They gave judgment for the plaintiff. (*Chilton vs. London and Croydon Railway* 5 *Ibid* p. 3.)

Anthracite Coal in Locomotives.

ITS USE ON THE READING RAILROAD.

OFFICE PHILADA. & R. R. R. Co.,
Reading, Pa., Jan. 18, 1855.

EDITOR MINERS' JOURNAL.—Dear Sir:—For the first time since the receipt of your favor of 13th ult., have I had time to reply.

The subject of the use of Anthracite Coal in Locomotive Engines is one of great importance, not only to the Schuylkill Coal Region, supplying now some 50,000 tons annually for Engines of the several companies employed in its carriage to market; but also to the Railroad interest of this country generally, comprising at present some 22,000 miles in daily operation, and more than half that number under construction! on all of which their fuel is, or will be, the principal item of expense.

I propose to give a brief statement of our experience in the use of Anthracite Coal as a fuel for Locomotives to the present date.

Previous to the year 1846, light engines, from 11 to 13 tons weight, of various patterns and by different builders, had been employed in our heavy transportation; and successfully, as far as concerned the practicability alone, of using this fuel during the unbroken trip of 95 miles, between the Coal Region and the Delaware.

The rapidly increasing business of the road, however, required engines of greater weight and efficiency; and since 1847, our Coal Trade has been carried on entirely by engines of the largest class, weighing from 24 to 28 tons with water and fuel; and with an annually increasing proportion of their number using Anthracite Coal exclusively. In 1847, 5 per cent. of our Coal transportation was hauled by engines using the latter fuel; and in 1854 this proportion had increased to 85 per cent. This company has now in use, 52 first class Locomotives, using and built expressly for this description of fuel! 49 for Coal and 3 for Passenger Trains.

Thirty-three of these have been built by Mr. Bross Winans, of Baltimore, and the balance in the

company's work-shops, under the superintendence, and after the designs of Mr. James Milholland, master machinist.

All use Anthracite Coal with complete success, in their trip of 95 miles down and up the road.—The distinctive features of these engines, adapting them to the use of this fuel, are as follows:

1. A large, and very long (from 5 to 7 feet) Fire-box.
2. No water way in back part of Fire-box; that portion of the latter being occupied by doors, and an open grate for the convenience of raking the fire, breaking "slag," "clinker," &c.
3. A "dead grate bar," fitting closely to the inside of the Fire-box, and extending 4 to 10 inches therefrom, to prevent the rush of air upwards impinging upon, and injuring the lower sheets of the Fire-box.
4. A variable exhaust, controlled by the engineer.
5. An open smoke-stack, protected on top only by a strong cast iron grating.
6. Iron tubes, and wide water ways.
7. A water tight ash pan, holding one or two inches of water, to keep the under surface of grate bars cool.

COMPARING COAL AND WOOD AS LOCOMOTIVE FUEL.

Engines using Anthracite Coal, cost from 10 to 20 per cent. more for repairs than those using wood, caused mainly by the greater wear of their boilers and Fire-boxes—the latter requiring renewal of its lower sheets every 18 to 24 months when doing heavy duty. One ton (2,240 lbs.) of good pure, free burning Anthracite, will be equal in a Locomotive, to about 1½ cords of good, dry, oak wood. If the latter be green, or inferior in quality, or if ordinary pine wood be used, the difference will be still greater—in favor of the Coal.

Our Coal burning engines haul, during the busiest season, an average of 100 coal cars 95 miles to market, loaded with 490 tons of coal; returning the same distance the following day with the empty cars. The loaded train weighs, exclusive of engine or tender, 740 tons, and the empty train returned, 250 tons, all of 2,240 lbs.

The total fall from Port Carbon to tide water is about 600 feet, divided into various grades, generally very light, none exceeding 19 feet between Schuylkill Haven and Falls—the points where trains are made up, ad divided between Richmond and Philadelphia.

There is no rising grade between Port Carbon and Richmond, with the exception of one of 44 feet at Falls—for 1¾ miles, up which assistant power is used, pushing the trains behind, the leading engine exerting her full power also. Forty miles are level, 8¾ miles of which are at one point continuous.

In performing this duty, our engines in good order, and with carefully selected Anthracite Coal, will consume between 8 and 9 tons of that fuel in the round trip of 190 miles, and haul their trains through as fast as limited by the rules of the road—form 10 to 12 miles per hour; with the power of attaining a higher rate of speed if allowed.

The average quantity of fuel used per trip during the whole year, is necessarily larger as stated in the annual reports—owing to the coal used in kindling being included—as well as that lost by broken trips, snow and sleet storms, waiting and laying over for trains, delays and accidents, &c., which railroad men can readily comprehend.

Such are the results of using this fuel in our heavy coal transportation.

Those Passenger Engines consuming it exclusively, haul 6 eight-wheeled Passenger cars 98 miles, between Pottsville and Philadelphia, at speeds of 30 miles per hour, on a level, with a consumption of about 2¼ tons down, and 3¾ up the road.

In no case, with good coal and ordinary care, is any practical difficulty experienced in keeping up the coal fire, and a proper supply of steam, for either the transportation of coal and heavy freight or passenger trains.

We prefer coal fuel to wood for several reasons, and should not return to the latter, even if used at the same cost.

Anthracite coal fuel secures us a considerable saving in expense compared with wood.

The supply of the former may be considered inexhaustible, when the latter is becoming more scarce and costly annually.

Wood requires about five times the storage space of coal, and cannot be handled and loaded as promptly and cheaply as the latter, which may be dumped into the Tender.

Coal is fire proof against all casualties of sparks cinders, &c. Coal requires no seasoning, being best adapted for use immediately on being mined. For fast Passenger and Express trains, requiring long runs with few stoppages, coal is particularly suitable. It occupies only one-fifth the space, and is equal in effect to double the weight of wood doing the same duty.

As these considerations are more or less applicable to most Railroads in the eastern states whose facilities of procuring coal are daily improving, while wood is becoming more costly—the question of introducing Anthracite coal as locomotive fuel, and of adapting all new engines to its use, appears of the greatest importance, especially at the present juncture, demanding the highest talent, economy and integrity, to re-establish public confidence in the commercial value of the most useful invention of the age. I am, sir, very respectfully, yours.

G. A. NICOLLS, *Eng. and Supt.*

Vermont and Massachusetts Railroad.

Abstract of last annual report.

Capital Stock.

The Capital Stock consists of 29,000 shares, which, at the par value of \$100 per share, amounts to.....\$2,900,000 00
A portion of this Stock was issued at less than par, so that it realized.....2,232,540 87

Loss on Stock.....\$667,459 13

Other Accounts.

Construction Account for Main Road.....	\$2,697,080 26
Construction Account for Greenfield Br....	248,495 08
	2,945,575 34
Locomotives	\$95,638 62
Merchandise Cars.....	91,514 89
Passenger and Baggage Cars.....	20,190 30
Road Furniture.....	14,996 22
Machine Shop, (fitting up Tools, &c.).....	3,310 47
	225,650 20
Interest Dividends.....	149,699 32
Discount on Bonds.....	135,438 20
	\$3,456,363 06

The following table shows the amount of Capital Stock and present liabilities of the company:

For Capital Stock.....	\$2,900,000 00
Funded Debt, Jan. 1, 1855.....	\$956,800 00
Floating Debt, Jan. 1, 1855.....	113,260 58
Total Debt.....	1,070,060 58

Total Debt and Capital Stock.....	\$3,970,060 58
Charged to Construction, Interest-Dividends and Discount on Bonds, as before shown.....	\$3,456,363 06
Discount on Stock, as before shown.....	667,459 13

Total cost of Road, Equipment, Buildings, etc.....	\$4,123,822 19
Total Debt and Capital Stock.....	3,970,060 58
	\$153,761 61

Thus it will be seen there has been an excess of Expenses over the Capital Stock and the Debts of the Corporation of \$153,761.61, which has been paid out of the earnings of the Road.

Annual Rate of Increase of Earnings.

1849....	\$145,117 69	1852....	\$220,906 70
1850....	177,694 68	1853....	248,854 99
1851....	195,923 54	1854....	273,814 01
Gain in 1850 over 1849.....	\$32,576 99		
" 1851 " 1850.....	18,228 86		
" 1852 " 1851.....	24,983 16		
" 1853 " 1852.....	27,948 29		
" 1854 " 1853.....	24,959 02		
" 1854 " 1849 showing total gain in five years.....	128,696 32		

N. E. and S. W. Alabama Railroad.

This company have made their first annual report. At their organization, one year since, it was resolved that the South-western terminus should be put in connection with both the Mobile and Ohio and the Miss. Southern Railroads; that on the North-east it should connect with the East Tennessee and Georgia Railroad; and that the work of construction should not be commenced until the subscriptions amounted to \$600,000 besides the cost of grading.

With regard to the first of these resolutions, conferences had been held with the managers of the Southern road to ascertain the point at which their line intersected the Mobile and Ohio; also to make an arrangement, if possible, by which, as both roads run parallel for some distance along the valley of the Allamuchee, the grading of a second track might be avoided. Should this not succeed it is stated that other negotiations are in progress by which an independent line can be graded on reasonable terms.

As to the North-eastern connection, three separate routes have been surveyed; and a final decision made to place the terminus of the road at Chattanooga, to which place a branch of the East Tennessee and Georgia Railroad is to be extended. A consolidation accordingly had been made with the Wills Valley Railroad Company, subject to the confirmation of the Alabama Legislature. This latter company had before consolidation a subscription of \$80,000, which has since that time been increased to \$259,400. Their line is about 75 miles in length, and forms a direct continuation of the N. E. and S. W. Alabama road from their point of connection to Chattanooga, where negotiations for depot grounds and connections with other roads have been completed. Considerable progress has also been made in surveying the route from the junction with the Wills Valley road to the Mississippi State line.

At a meeting of the Directors, on the 22nd November last, it was stated that the whole cost of grading was provided for, and that the balance lacking to complete the subscription of \$600,000 amounted to only \$23,014. Since that date additional subscriptions of \$25,000 in all have been obtained.

On the greater part of the line arrangements have been made for commencing operations in grading. In some cases, the planters have agreed to undertake the work; in others, cash and stock subscriptions have been made sufficient to warrant the letting of contracts. The fact that such an effort has been so far successful, in the condition of the country during the past year, is considered satisfactory evidence of the need of the road, and

of the certainty of its success when completed.—The line appears to traverse some valuable mineral sections of country. In Roup's Valley, abundance of coal and limestone is said to be found easy of access. Iron ore also is found exceedingly rich and abundant in quality. The propriety of establishing or encouraging iron works for the manufacture of rails, &c., is submitted to the stockholders. As the company have received no aid from the General Government, and it is next to impossible to obtain money abroad, the following measures are recommended to the shareholders for their adoption, viz:

1st, The (voluntary) imposition on the whole line of a fund for general management, amounting to \$150,000 payable in one, two, and three years.

2nd, An appropriation from the \$600,000 fund of \$35,000 to meet the expenses of the company for the present year.

3d, The organization of the corps of Engineers on a scale to prepare the whole road for letting, at the earliest possible period.

4th, The attention of the President to the possibility of manufacturing iron on the line of the road, and procuring supplies of money abroad sufficient to place the mechanical structure under contract.

5th, The appointment of a suitable agent in each county to obtain a relinquishment of the right of way, and further subscriptions to the work.

The Trade and Tonnage of the Canals.

REPORT OF THE AUDITOR.

To the Legislature of the State of New York:

The Auditor of the Canal Department is required by statute annually to make report to the Legislature of the tolls, trade and tonnage of the canals of this State during the season of navigation, and in obedience to such requirement he makes the following report:—

All the matters and statistics which are required to be reported will be found fully and particularly set forth in the accompanying tables. It will be perceived from such tables that the whole amount of tolls collected upon the several canals of this State during the last season of navigation was \$2,773,566 35. Which amount is composed as follows:—

Toll on boats and passengers.....	\$226,128
" products of the forest.....	\$519,466
" " of animals.....	76,121
" vegetable food.....	997,183
" other agricultural products.....	7,105
" manufactures.....	123,425
" merchandize.....	638,039
" other articles.....	186,099
	2,547,438
	\$2,773,566

The whole amount of tonnage transported on the Canals during the last season of navigation, ascending and descending, was in tons.....4,165,862

Which was composed as follows:—

Products of the forest.....	tons 1,768,745
Products of animals.....	78,764
Vegetable food.....	903,735
Other agricultural products.....	10,420
	992,889
Manufactures.....	258,021
Merchandize.....	406,022
Other articles.....	740,235
	4,165,862

The value of such tonnage is estimated as follows:—

Products of the forest.....	\$14,384,785
Product of animals.....	\$11,666,296
Vegetable food.....	38,381,500
Other agricultural products.....	1,988,068
	51,980,864
Manufactures.....	9,796,420
Merchandise.....	123,167,863
Other articles.....	10,954,380

Total value.....\$210,284,312

The total movement of freight or number of tons carried one mile during the last season of navigation was 668,659,044. The total movements of the several classes comprising such total tonnage, are as follows:—

Product of the forest..... tons	221,457,717
Product of animals.....	20,450,209
Vegetable food.....	214,220,251
Other agricultural products.....	1,450,250
	236,120,710
Manufactures.....	32,680,909
Merchandise.....	104,500,083
Other articles.....	73,899,625

Total.....668,659,044

The whole amount of tonnage arriving at tide water, by way of the Erie Canal, from the Western States or Canada, during the last season of navigation, was 1,094,391 tons.

The whole amount of tonnage arriving at tide water, the product of this State, during the same period, was.....602,167 tons.

The whole number of barrels of flour arriving at tide water through the Canals, during the last season of navigation, was.....1,249,453

The whole number of bushels of wheat arriving during the same period, was.....3,523,800

Which turned into flour, calculating five bushels to the barrel, would make.... 704,760

Total in barrels.....1,954,213

The whole number of bushels of corn arriving at tide water during same period, was 12,813,929

The total number of new boats registered during the last year, is 760, with a total tonnage of.....80,365 tons.
Making an average tonnage of.....105.7 tons.

The number of lockages at Alexander's lock for the season was 35,981, and the greatest number of lockages at any lock was 40,821 at lock No. 45, Frankfort.

Such is a brief summary of the trade and revenue of the Canals, as exhibited in the accompanying tables, during the season of navigation. It exhibits, as compared with the season of 1853, a decrease in revenue of.....\$431,152
A decrease in tonnage of.....81,991 tons.

Divided among the different classes of articles as follows:

Product of forest, decrease.....	52,780 tons.
Vegetable food, ".....	167,565 "
Merchandise ".....	52,305 "
	272,650 "

Products of animals, increase.....	8,072 tons.
Other agricultural products, increase.....	1,408 "
Manufactures, increase.....	27,985 "
Other articles, ".....	153,194 "
	190,659 "

Decrease.....81,991 "

Decrease in lockages at Alexander's lock...6,986

In flour and wheat, comprised in the returns of vegetable food, there has been a decrease in tonnage the past year, as compared with 1853, of 419,774 tons, and a decrease in tolls of \$635,199. In corn and oats there has been an increase, during the same period, of 270,231 tons, and an increase in tolls of \$354,967. Under the head of

products of the forest, there was a decrease in tonnage upon shingles, boards and scantling, as compared with 1853, of 152,956 tons, and an increased tonnage upon timber, staves and wood of 102,533 tons, and a decrease in pot and pearl ashes of 2,215 tons. Under the head of "other articles," there was an increase of the tonnage of mineral coal, for same period, of 50,155 tons, and of sundries 56,293 tons, which last increase is principally composed of iron ore transported through the Champlain and Chenango Canals.

The remaining part of the report is devoted to a discussion of the propriety of re-imposing duties on railroad freight. The Auditor argues that while the total freight in tons carried one mile on the Canals, has, during last year, decreased 31,730,889 tons; on the Northern, Central, and Erie roads, it has increased 55,736,430 tons. While the actual increase of tonnage on the Canals and these railroads combined exceeded that of the previous year by 234,461 tons, there had been a decrease upon the Canals of 81,991 tons, and a consequent increase on the railroads of 316,452 tons, with an increase of earnings from freight alone of \$1,520,688. While there has been a decrease on the Canals of 52,780 tons of forest products, 167,565 tons of vegetable products, and 52,305 tons of merchandise, there has been an increase to the Erie and Northern Railroad business of 33,362 tons of the first, 21,157 of the second, and on the three roads, of 77,185 tons of the third. These facts, the Auditor thinks, cannot be accounted for by the diversion of tonnage from the Western portion of the Canal to Lake Ontario, as while there has been an increase in the tonnage shipped at Buffalo, there has been a decrease in that shipped at Oswego. He considers that the re-imposition of tolls need last no longer than till the enlargement of the Erie Canal shall be completed; that the measure is noways unjust to the railroads, some of them having been originally prohibited in their charter from carrying freight, and afterwards owing the largest portion of their business to the prosperity which the Canals had built up, while of the \$350,000 with which the Canals are annually taxed to pay the interest and redeem the principal of the General Fund Debt, amounting to \$6,355,654, nearly one half is for advances made towards the construction of the Erie road, without which, he thinks, the road could not yet have been completed; and the Northern road was built with direct reference to the diversion of trade from the Canals. In these circumstances, he considers it to be the duty of the State to see to the protection of her own interests.

Such a course, too, is requisite, he thinks, from the fact that "under the present management of railroads, in their strife to direct business from the Canals, 'and contend with the water line in the economy of transportation,' much freight has been carried by them at losing rates, the loss upon which has been made up, to as great an extent as practicable, by a large tariff of freight upon many, if not all, articles composing legitimate railroad freight. Confine the freighting business of railroads to legitimate railroad freight, by imposing tolls upon the legitimate Canal freight, and the necessity of the increased tariff upon some to make up for losses on other descriptions of freights, no longer exists, and the necessary consequence will be the cheapening of transportation, and not its increase in cost." As to driving business out of the State on rival lines, he thinks

no danger exists, as though the tolls were imposed on railroads, the rates on the Canal would still remain the same.

In respect to the business of the current fiscal year, the report shows that for the months of September, October, November, and December, the receipts were.....\$1,172,088
Amount needed for the current fiscal year.....3,413,121

Leaving to be realized during May,

June, July, and August next.....\$2,251,033
Such a sum he states, is unprecedented in the history of the Canals. In 1851, the tolls, being in excess of any former year, except 1847, the total receipts, during the corresponding months, were only \$1,930,626. For the next fiscal year, the constitutional charges upon the revenue will be increased more than \$650,000 over those of the present. There is still, therefore, less probability of their being met.

Railroads in Australia.

One of the most extraordinary railroad enterprises of the present century, is for the construction of 700 miles of double track, and 300 miles of single track, to connect Sydney, Melbourne and Adelaide, in Australia. This can be accomplished at an aggregate cost of twenty-one millions sterling, (one hundred million of dollars) only with the aid of the Home Government.

The chief features of the project are that it seeks for the promotion and direction of the Home Government, by guaranteeing a loan for its construction, the interest of which should be payable and be chargeable on the general revenue of South Australia, New South Wales, and Victoria, either in proportion to the length of railway passing through each colony, or in some other ratio to the amount of the actual estimated outlay or advantage of each colony; and that imperial commissioners should be appointed to directed and control the expenditure of this loan, and to receive in trust for the purpose of creating a fund for the ultimate redemption of the loan, waste lands of the Crown, on both sides of the railway, for a distance of ten miles; and to cause the same to be gradually sold at public auction, according to the existing laws regulating the sale of waste lands of the Crown; and of the proceeds of the said sales to apply one-half in the introduction of labor into the colony, and the other moiety to be carried to account of the fund for eventually redeeming the railway loan. Estimating the cost of the undertaking at ten millions for the one thousand miles of railway necessary to connect Adelaide, Sydney and Melbourne, the difference between the colonies raising this amount with or without the guarantee of Parliament would probably not be less than two per cent; the guarantee would, therefore, be equivalent to a grant from the Home Government of not less than £200,000 per annum.

The cost for the construction of this project is £21,000,000, as follows:

COST OF CONSTRUCTION.	
700 miles of double line, at £15,000 per mile.....	£10,500,000
300 miles of single line at £10,000 per mile.....	3,000,000
Passage money of 5,000 laborers and artisans, with their wives and families, say 20,000 adults.....	500,000
Docks and Warehouses in connection with the terminal station of each city—Sydney, Melbourne, and Adelaide.....	4,000,000
Interest of capital during construction of works, at the rate of 3½ per ct. say.....	3,000,000
Total.....	£21,000,000

The American Railroad Journal \$5 per annum in advance. Advertising per annum \$125 per line.

Railway Map of the United States showing all the Railways in operation, progress and projected—on rollers \$3—pocket edition, by mail, \$1.

Johnson's Routes to the Pacific with Maps, \$1.

Lyon's Tables of Excavations and Embankments, \$1.50.

A copy of the pocket edition of our new Map, corrected to 1st January, will be given to each new Subscriber and to each of the others who have paid up to Jan'y 1st, 1855; also to those who have not yet paid, as fast as they pay up.

Please address AMERICAN RAILROAD JOURNAL,

Office 9 Spruce st., New York.

Our Subscribers in Great Britain entitled to Maps will obtain them by calling on our Agents, Messrs. ALGAR & STREET, 11 Clements Lane, Lombard st., London, who also have them for sale.

American Railroad Journal.

Saturday, February 17, 1855.

How to Correct Mistakes in Railway Management.

It should be a cardinal principle with stockholders in all roads, never to allow the exercise of extraordinary powers by directors, for two sufficient reasons; want of integrity, and incompetency to the discharge of their duties. Where is there a board of directors, who in the long run, either in whole or in part, are not influenced by selfish considerations, rather than by a single eye to their duties? There are exceptions, but the rule is the other way. It is impossible, as things are, that it should not be so. In a great many cases, men work their way into a direction for the purpose of turning their positions to account. In proof of the correctness of this assertion, from whose misconduct, let us ask, have our roads suffered most? Who destroyed the New Haven and Harlem Railroads? The directors. To whom has the mismanagement of the Michigan Central Road been due? To its directors. Who recently perpetrated a great fraud upon the Rock Island Road? The directors. The directors are the only parties in whom are united the position and disposition to mismanage a road. In most of the instances cited, the object was palpable. The immediate gain far exceeded any other interest the parties had in the road. The advantage of the stockholders on the other hand is exactly measured by the degree of success of their road. Their employees upon it have but few opportunities, or inducements to unfaithfulness. There may be among these a great deal of incompetency, but there is, as a general rule, a good degree of integrity. With their slight opportunities for speculation, honesty is felt to be the better policy. Their duties are limited and well defined. Those of directors have a far wider scope. They are constantly influenced by considerations, the effect of whose application they cannot distinctly see. Hence, having no definite land-marks to guide them, they may for a long time pursue a line of policy which in the end proves itself to be distinctive of the best interests of the work under their charge.

That directors cannot safely be entrusted with full authority in the management of our roads, the misfortunes which have overtaken them, and for which we may say in all instances they are directly responsible, are full proof. Between their want of integrity and capacity, nearly all

the mistakes and misconduct in railway management happen. This is no random change. Show us an unlucky road, and we will put our finger upon the very plague spot, and not go outside of the direction.

By these remarks we do not pretend to say that Directors of Railroads are not like all other men. They are just like the average of men who will use their positions to promote their own advantage. More than this, and worse than all, it is not considered out of the way, for a man, and set of men, to use a road which they control to their own advantage, to the sacrifice of the stockholders. Mr. Schuyler certainly had the reputation of being interested in contracts, and of making a great deal of money out of roads of which he was President; yet, according to Mr. Deane, he enjoyed so exalted a reputation for probity, that no man could wag his tongue against him without losing his own character. In proof, Mr. Deane might have referred to the numerous and responsible trusts heaped upon him. His path was literally strewn with the naked bones of the roads he had destroyed. He could rob with impunity so long as he enjoyed a reputation for *wealth*. This sanctified every dishonest act. Will the lucky builders of the Bureau Valley road lose in reputation by their successful operation upon the Rock Island Road? Not a bit. They will be rather courted for their successful inroad into this company in hope that they will invite others to join them in their next predatory expedition. Success sanctifies the act. The moral sense of the community is never sufficient to bring such offenders to justice. The only way in which to save our roads from their machinations, is to take from them all power to do harm. Directors must be entrusted only with ministerial and executive, but never with judicial powers. These must always be retained by the Stockholders.

A great source of mismanagement of railroads is the fact that many of the most important measures are taken without due consideration—which rarely will be given by a board of Directors.—Were all such matters discussed in conventions of stockholders, such conventions would probably embrace persons familiar with every kind of railroad management. The publicity which these discussions would attract, would provoke criticism, and would in this manner develop and bring in aid of action, whatever experience had developed upon the subject under discussion. But as matters are at present conducted, everything is done in secret conclave, and the propriety or impropriety of any line of policy, is only seen as it develops itself in practice. In this way a board of Directors may grope their way along, and hit upon the true path, only solving questions which have been exploded by other companies long ago.

Our railroad companies, if they wish to succeed, can no longer go on in the old way. They must so circumscribe the power of directors, that they cannot do wrong if they would. They must take every means possible to call attention to their management and acts, instead of concealing both, as heretofore. If this is done, the good sense of the public will supply the correctives of every unwise and impolitic step, and indicate the true course to be followed in any given case.—Certainly there is no reason why railroads should not be as well conducted as any other kind of bu-

siness. All that is wanted is the application of the same principles which conduct to success in kindred enterprises.

How our Railroads Cost so Much.

The Ohio and Mississippi road may be taken as a good illustration of the immense increase of the nominal cost of a road, owing to bad management, and the lack of sufficient means for construction. The first cost of this road was estimated by Mr. O. H. Mitchell, the former Engineer of the company, at \$6,000,000, or about \$18,000 per mile. The same gentleman was instrumental in negotiating a contract for its construction at about \$9,000,000, or an advance of some 50 per cent. upon his own estimates. For his services in this particular, he is understood to have received a very large sum—we have heard it stated as high as one hundred thousand dollars. It would have been supposed that with a margin for profit of \$3,000,000 to the contractors, there would not have been much difficulty in negotiating a contract for construction. Contractors certainly ought not to require much persuasion to enter into a contract out of which \$3,000,000 could be figured. But the payment of the immense bonus for constructing the road, only showed the weakness of the company, and considering its weakness, they could perhaps well afford to pay Mr. Mitel his \$100,000, provided he had secured the construction of the road. The company never had any strength at all adequate to the magnitude of the task before them. The only important *Cash* means were the subscriptions of the cities of Cincinnati and St. Louis, to the amount of \$600,000 from the former, and \$500,000 from the latter. So needy were they at the outset, that they were obliged to resort to the Cincinnati Loan, by procuring a waiver of some of the conditions upon which it was made, requiring the expenditure of a certain amount before the loan became available. This arrangement gave the company a start. The negotiations of the first mortgage bonds, to the amount of nearly \$3,000,000, continued for a time to supply funds. These failing, the contractors thought it a good opportunity to sell out, which they did, to Messrs Page and Bacon at a nominal profit of \$500,000. This firm then became the principal contractors in the road, and they undoubtedly vested a large sum in it—so large that it was, we presume, the cause of their failure. But if they brought new strength to the project, its cost swelled most rapidly under their hands. What the cost of the road now is, we are unable to state; but in an article published by the *New York Tribune*, in March last, the cost of the road at that time was stated to be as follows:

1st Mortgage Bonds.....	\$2,800,000
2d do do	3,000,000
Stock paid up.....	6,500,000
Total.....	\$12,300,000

The money represented by the above amount of stock was never paid in; though we presume the amount may have been issued probably as a further profit for Messrs. Page and Bacon. Mr. Mitchell has the reputation of being a joint-contractor with them. If so, he has the pleasure of being interested in a contract at a price exceeding twice his original estimates.

The correctness of the statement in the *Tribune* we have never seen authentically denied. We

presume it was prepared by the authority of the Company.

We are now informed that Messrs. Page and Bacon have given up the contract for construction. New parties must, of course, be called in. Reasoning from past experience, their aid will add some \$3,000,000 to the capital stock of the company, and will probably carry the total cost of the road up to \$15,000,000 say \$45,000 per mile, or about double what the road, with cash on hand and good management, could have been built for. And what will be the result? The road can never pay upon its immense cost, and failing to do this will throw discredit upon all railroad securities; for the public will only look at the fact of the productiveness of roads, without seeking the explanation. But this is not all. A poorly paying road is almost always badly managed. Why? Because the probabilities are that it has been constructed in a wasteful and prodigal manner, by which the *morale* of all parties connected with it has been destroyed. The very fact, too, that a road does not pay, is generally enough to destroy anything like good management. Upon a successful work, every employee feels that his reputation is increased, just in proportion to the degree of its success. The credit he gets is no small part of the reward he seeks, and he strives to increase this reward by helping forward the success. On the other hand, a person employed on a poor road knows that his connection with it will throw discredit upon him, no matter how well he may perform his duties; for with the public, the test of merit is *success*. Persons employed on poorly paying roads have no adventitious aids to assist them in the faithful discharge of their duties. They therefore either lose their energy and ambition, or quit a work upon which, however well they may have performed their part it is hardly possible for them to earn an honorable reputation. To allow the nominal capital of a road to exceed twice its cost, results in a double injury—an unproductive and poorly managed work.

Railroad Reports.

The annual elections of several important roads have taken place, among which we may name, the New York Central and the New York and Erie without any report from the Directors. We suppose we are to remain without any other, except those made to the Legislature, which very few see and which throw but little satisfactory light upon the management of either company. Now, no retiring Board of Directors should be allowed to go out, without "first presenting an account of their stewardship". Take the New York Central. Now nearly all the Board are re-elected; yet not a word was given to the public, excepting a copy of the Legislative report which merely gives results without saying anything about *processes* that vastly more concern the stockholders to know. We have not yet even the Legislative report from the Erie. The Hudson river is equally silent. Yet all these roads have been in the market for money, almost the whole year. Such neglect on the part of important railroad companies ought not to be tolerated. The Erie have some little apology for omitting theirs, in the report of the Investigating Committee; but this constitutes no valid excuse,

as the Committee's report contains no definite information as to the management of the road.—Stockholders should insist upon semi-annual statements from all the above companies. The Legislature could not do better than make it compulsory on all companies, to submit semi-annual statements to the public. What is wanted is *light*; for when the disease is once-seen, it will not be long before some one points out a remedy.

Ogdensburgh Railroad.

A very wicked, and at the same time a very absurd bill has been introduced into the Legislature of this State for the purpose of consolidating the various interests in the above road. The bill proposes that the *value* of the various classes of bond and stockholders shall be appraised, and provides that their value shall be represented by a *new* stock to be issued to the holders of the old stock and bonds in lieu of what they now hold. In cases where the holders of old stock or bonds refuse to take the *new* stock, the *value* of the old stock or bonds, as ascertained by a commission, is to be paid to such persons in *cash*.

In the first place, it would be impossible to carry out the provision of the above bill, should it become a law. Between the stock and bondholders of every company, and the company itself, there is a *special* contract which becomes a *vested* right, which legislatures cannot abridge or modify. The holder of a mortgage is part owner of the company's property, and no court of any State would allow the original contract to be annulled, without his consent. The advocates of the above measure, if the Legislature should grant them all they ask, would take nothing by their bill, without the unanimous consent of all the bondholders, as the Legislature cannot do any act impairing the obligation of contracts.

But while such are the *legal* relations of the case, we hope the Legislature will take no action in the premises whatever.

Any attempts to interfere for the assumed relief of companies, by changing the original relations of the parties interested is not to be thought of. If the Legislature may do one thing, it may another. It *cannot* interfere without weakening confidence in the stability and uniformity of our Legislation, and the safety of our railroads as investments of capital; and as it is not competent to effect the proposed measure, nothing but harm can come of its action.

Oils for Light and Lubrication.

Mr. F. S. PEASE, 61 Main st., Buffalo, offers to the railroad public a new quality of oil which it is said is very economical both for burning and lubrication. Anything tending to economy in railway operation is very desirable at this moment, and is deserving the attention of Managers.

The oil referred to has been tested by various parties and found to be much more efficient and cheaper than those now generally in use. This being the case, companies will find it to their advantage to give it a trial.

Nothing is more clear to the minds of all railroad men, than, that in order to restore confidence in the value of our improvements as investments of capital, the most rigid economy must be observed in their management. Such a course will, in a majority of cases, secure a large per centage

of net earnings, and redeem the securities from their present low range in the market.

This system of economy must be thoroughly applied to every branch of railroad management. The item of oil is a very important one on any railway, and a saving of thirty or forty per cent. is no small matter. Any course which promises such a reduction of expenditure is at last worthy of investigation. The card of Mr. PEASE will be found in another column.

Erie Railroad.

The Erie Railroad has safely passed the crisis which many predicted would be its deathblow, has promptly met the income bonds that fell due on the 1st instant, and, as a necessary result, stands higher than ever in public esteem. The earnings of the road, too, continue unexpectedly large, while we are confident that good management is steadily cutting down the ratio of expenses to receipts. We think that with equally good management to what has characterized the company for some time past, the road has fairly surmounted the greatest difficulties it will ever have to encounter. We do not believe any contingency can arise which will seriously impair the safety of the funded debt of this company, large as it is.

The receipts of the road for January were \$630,000, and the actual earnings about \$500,000. The receipts for January have previously been considerably less than the average for the year. There is hardly any doubt, therefore, that the revenue of the year will fully equal six million dollars, nearly, if not quite one-half of which, we are confident, will be net earnings—a sum equal to about 9 per cent. on the whole cost of the road.

The Rock Island and Bureau Valley Consolidation.

The injustice of this measure is more apparent from the fact that the stockholders in the Bureau Valley Railroad take precedence in dividends, of those in the Rock Island. The former is a perpetual charge upon the latter, equal to 8 per cent. on an estimated cost of \$1,600,000, a much larger sum than it is to be expected that our roads can pay on the full cost. If the two companies wished to consolidate, why not do so on equal terms and make a *common* stock, instead of giving to one the preference under whatever contingencies that may happen? Both roads may prove unproductive. In such case, the Bureau Valley road may absorb a considerable portion of the earnings of the other, and leave it without dividends. We can point to a parallel case. The Vermont Central, as is well known, took a perpetual lease of the Vermont and Canada at 8 per cent. per annum. This was thought to be all right at the time. What has been the result? Why, the lesser road has actually swallowed the greater. The *lessee* has changed places with the *lessor*, and the former is *non est inventus* and its stock and bondholders without a road. It is hardly possible that the Rock Island stock and bondholders should find themselves in the same category, but stranger things than this have happened. At any rate, it shows the danger to which the above measure exposes all companies.

We will give another instance of a lease, in which Mr. Sheffield, we believe, has played an im-

portant part, that of the New Haven Canal road which by some sleight of hand was transferred to the New York and New Haven. Mr. Sheffield, if we mistake not, was one of the parties interested in the construction of the Canal road, and we presume that it was by his instrumentality, it was saddled upon the New York and New Haven. If so, his apprenticeship has been turned to good account. The latter lease is one of the sores which now afflict the New Haven Company. It will not be long, probably, before the Rock Island stockholders will find that they have been similarly imposed upon.

Indianapolis and Cincinnati Railroad.

The semi-annual report of this company for the half-year ending Jan'y 1st, 1855, states the earnings for this period to have been as follows, viz:

Earnings in July.....	\$15,842 62
August.....	25,742 33
September.....	31,111 84
October.....	33,382 23
November.....	37,401 51
December.....	31,748 97

Total for six months.....	\$175,225 00
Add for Express and Mail.....	4,341 92

	\$179,566 92
Transportation Expenses for same period.....	83,469 79

Net Earnings.....	\$96,097 13
Deduct Interest paid on bonds.....	38,650 00

Leaving for Dividend.....\$57,447 13
— or a little more than 4 7-10th per cent. on capital stock.

The road was opened the first of December, 1853. The total receipts for the 13 months have been \$325,514 72. Total expenses, including interest on bonds, \$226,258 35. Balance applicable to dividends, \$99,256 37, or 8 1-10th per cent. Gross earnings per mile, \$3,616 83. Total cost of road and equipment, \$2,178,469 61; cost per mile, \$24,205 21. Total amount of stock subscribed, \$1,213,723 38. Bonds due in 1866, \$500,000; in 1862, \$350,000; in 1867, \$8,000; all bearing seven per cent. interest. Income Bonds due in 1857, \$170,360; Real Estate Bonds due in 1858, \$200,000; all bearing ten per cent. interest. Amount of floating debt, \$194,498 66. Bills receivable \$129,226 89; Real Estate not needed for the road and soon to be sold \$299,466.

The net earnings for the year have been expended in the payment of the floating debt.—A dividend has consequently been declared in seven per cent. bonds of the company having ten years to run.

The above statement shows a favorable result for the first year, during which all roads are operated under great disadvantages. The financial condition of the company is not unfavorable. The real estate of the company will suffice to liquidate the bonds based upon it, and will produce sufficient, with the bills receivable, to pay off the floating debt. We believe the road to be well built and well equipped, and to be operated in an economical manner. Its general route is a very favorable one, and it traverses a very excellent country for local traffic.

We see no reason to doubt that, hereafter, it will pay cash dividends quite up to the average of the best Indiana roads.

Philadelphia and Sunbury Railroad

This company have made a report of their proceedings for the past year. The following figures show the subscriptions made to their stock, and the payments made on the same.

	No. of Shares.	Amount.	Paid.
City of Phila.....	20,000	2,000,000	950,000 00
Dist. of Richmond.....	2,500	250,000	250,000 00
City of Erie.....	3,000	300,000	150,000 00
Parties other than Municipal corporations.....	23,815	2,381,500	759,172 00
From sale of Bonds and other sources.....			152,754 84
			\$2,268,926 84

EXPENDITURES.

Engineering for the whole line of road.....	97,845 45
Land Damages, Right of Way and Land.....	73,323 44
Road Construction and Superstructure between Sunbury and Lock Haven, (30 miles of which are finished and in operation,) including a large amount of work done, and materials for the remaining portions.....	1,561,502 33
Road Construction west of Lock Haven.....	65,717 17
Piers in the Harbor or Erie.....	48,001 37
Interest account and discount on Bonds.....	70,191 55
Contingent expenses of all kinds.....	60,003 45
Balance on hand, Feb. 1, 1855.....	292,336 98
	\$2,268,926 84

In the above subscriptions are not included those of any Counties, Towns, or Individuals, upon which no instalment has been paid.

Instalments yet payable by the City of Philadelphia.....	\$1,050,000
do by City of Erie.....	150,000
do by other subscribers.....	1,622,328

Making a total of.....\$2,822,328

The most important matter in their last year's history was the opening, in December last, of that part of the road connecting the Catawissa Railroad at Milton, with the Williamsport and Elmira Railroad at Williamsport, a distance of nearly 30 miles. Through this channel large quantities of lumber and other freight are being forwarded daily to Philadelphia. Additional cars will soon be ready to accommodate this increasing business. Arrangements have been made for running express trains from Philadelphia daily to Niagara Falls, Detroit and Chicago—the last of which can be reached in 34 hours. By the payments on the Philadelphia and other subscriptions, the company have been released from a very embarrassing position; as that part of the line recently completed was mortgaged to the Catawissa company. The other means at their command have been employed in grading parts of the lines between Milton and Sunbury, between Williamsport and the mouth of the Sinnamahoning, in continuing the work at the harbor of Erie, payments for land damages, &c. The line from Milton to Williamsport was deemed so important that it was determined to bridge and grade it at once for a double track. The whole work is said to be of the most substantial character in every respect. That part between Milton and Sunbury—12 miles in length—it is expected will be ready for operations in July next, opening an avenue for the exportation of coal to Canada and Western New York. The extent of this market is said to be incalculable. Intelligent gentlemen state

that they can take out and deliver at Sunbury not less than 1,000,000 tons of coal per annum, as soon as means shall be furnished of getting to market. Assuming only half this quantity, the report anticipates a net profit thereon of \$200,000, or 10 per cent. on \$2,000,000, its entire cost, from this article alone, while as much may probably be anticipated to be received from other sources.

Important connections with this road are already in course of construction. At Lock Haven, it will intersect the Lock Haven and Tyrone line, and through that connect with the Pennsylvania, at Tyrone. At Queen's Run and Farransville, a few miles further west, a bituminous coal region covered with forest, extends above 100 miles along the line of the road. At Winslow, 40 miles west of Lock Haven, the road crosses the Alleghany Valley line; at Venango and Warren, lines branch off extending through Central and Northern Ohio; and at Erie, they reach the most secure harbor on the Lake.

To aid in carrying on their works, the Board in December last, issued \$1,000,000 seven per cent. first mortgage bonds, and covered by that part of the road between Sunbury and Williamsport.—Only a small amount of these are yet disposed of, and the remainder will not be required until that portion of the road from Sunbury to Milton shall have been completed.

The following gentlemen were elected Directors for the ensuing year.

William Bigler, Charles S. Boker, Robert Ewing, John W. Stokes, Robert L. Martin, Franklin Platt, Charles Sinnickson, Henry Duhring, Israel Morris, D. K. Jackson, James Armstrong, D. Deal, W. C. Ludwig. The former President, Hon James Cooper, declining a re-election, ex-Gov. W. Bigler was chosen President for the ensuing year.

Schuylkill Navigation Company.

The earnings of this corporation for 1854 were:	
From tolls.....	\$762,892 94
From rents of real estate and water power.....	29,336 61
From interest on contingent fund and temporary loans.....	5,928 36

Total.....\$798,157 91

EXPENSES.

Current expenses of all kinds.....	\$295,366 23
Interest on loans and all other obligations of the company.....	359,827 43

	\$655,193 66
Balance to the credit of the profit and loss account.....	\$142,964 25

The gross tonnage for the year both ways was 1,218,498 tons, of which 907 354 were of Anthracite coal. The aggregate shows a slight increase over 1853. The income from the tolls was \$101,203 greater, and that from real estate and water power \$62,14 less than the preceding year. Owing to the advances on labor and materials, the expenses were considerably in excess.

The expenditure for new construction of work was \$56,060. The carrying capacity of the company is now considered equal to 1,000,000 tons per annum. The fear of an over-stocked market and the early closing of the navigation in December alone prevented that quantity from being carried during the year.

A lot of ground has been purchased, and a suitable building erected on it, as a permanent office for the company.

During the year, the Trustees of the Boat Loan have procured 350 new railroad coal cars, 60 coal

barges, and one Locomotive engine. The total cost of these was \$196,874, of which \$84,807 remain unpaid; which with the instalment of the principal of the Boat Loan of 1850, payable in 1855, it is estimated will be met, by the payments to be made by the boatmen, on account of their leases.

As the computed profits for the year leave a sum equal to 6 per cent. on the Preferred Stock, a resolution was passed by the Managers authorizing a distribution of Boat Loan Bonds to that extent. These bear 6 per cent. interest, and the principal is made payable in five equal instalments in 1859, 1860, 1861, 1862, and 1863.

The report of the President and Directors, urges the necessity of further enlargement to meet the future increase of business, and of making provision to discharge the indebtedness under which they labor. Steps were consequently taken by the stockholders to that effect.

The following statement shows the liabilities of the company, at Dec. 18th, 1854.

Capital Stock.....	\$1,938,073 00
Preferred Stock.....	2,604,500 00
Mortgaged Loan of 1872.....	1,776,783 03
Convertible Mortgaged Loan of 1882.....	3,951,876 32
Improvement Debt of 1856.....	8,300 00
Interest on Loans due prior to July 1, 1852, not yet converted into Stock, and Loans under plan of settlement.....	15,505 28
Interest on Loans of 1872 and 1882 due to Jan. 1, 1855, inclusive....	129,315 15
Dividends unclaimed.....	4,963 73
Bonds and Mortgages.....	112,583 92
Bills Payable for Engineers' drafts, &c.....	51,239 57
Boat Premiums for 1854.....	13,000 00
Debts due to sundry persons.....	1,394 36
Contingent Fund.....	100,000 00
Balance of Profit and Loss Account.....	142,917 05
	\$10,850,451 41

Railways in Great Britain.

The total number of miles of Railway in operation in Great Britain, on the first day of January 1855 was 8,028. The total receipts for 1854 were £20,000,545; receipts per mile £2,491. Total cost of construction £273,860,000; being at the rate of £34,000 per mile.

The total number of miles opened in 1848, was 975 miles; in 1849, 835 miles; in 1850, 1,087 miles (of which 487 miles were open in 1849), but the traffic returns were not published till 1850.—In 1851 the additional mileage was 299 miles; in 1852, 374 miles; and in 1854, 307 miles.

The annual increase of traffic on railways has been very considerable, partly arising from the further development of traffic on the trunk lines, and partly from the additional receipts derived from the opening of new lines and branches. The increase in the year 1843 over that of the preceding year, amounted to £500,874; in the year 1844..to £768,337; in 1845..to £1,058,342; in 1846..to 1,020,650; in 1847..to 1,285,797; in 1848..to 1,109,335; in 1849..to 980,808; in 1850..to 1,774,641; in 1851..to 1,809,923; in 1852..to 520,402; and in 1853, to £2,040,220. The great increase of traffic in the year 1850 is due in a great measure to the encouragement given by railway companies to excursion traffic; the increase in 1851 chiefly arose from that cause in connection with the Great exhibition and the general improvement in trade. It would appear that the efforts made to increase the traffic in 1850 and 1851, had reacted on the natural increase of traffic in 1852, and reduced its amount by £880,400 as compared with the average of ten preceding years. The great increase of trade to Australia and America consequent on the gold discoveries

had the effect of raising the traffic in 1852 to a point which had never been reached before, showing an increase of £2,040,220 over the preceding year.

The increase of traffic in 1854 over that of 1853 is much more than could have been expected.—The total receipts from railway traffic for 1853 amounted to £17,920,530, and for 1854 to £20,000,525, showing an increase of £2,079,995, or above 11 per cent. Nothing can be more satisfactory than this result: the increase of railway traffic has hitherto exceeded the most sanguine expectations, and were it not for the deep interest which very influential parties have in increasing the expenditure or capital, the net revenue arising from railway traffic would be in many instances highly remunerative, while in others it would be only a matter of time to obtain good dividends for all.

The average traffic receipts per mile per annum were as follows:—For 1842, £3,118; for 1843, £3,085; for 1844, £3,278; for 1845, £3,469; for 1846, £3,305; for 1847, £2,870; for 1848, £2,566; for 1849, £2,302; for 1850, £2,227; for 1851, £2,283; for 1852, £2,238; for 1853, 2,471, and for 1854, £2,604, showing of late years a progressive increase in the receipts per mile per annum.

The amount of capital expended on the railways referred to in the table* up to July, 1842, was £52,580,100; in 1843, £57,365,100; in 1844, 63,482,100; in 1845, 71,646,100; in 1846, 83,165,100; in 1847, 109,528,000; in 1848, 148,200,000; in 1849, 181,000,000; in 1850, 219,762,730; in 1851, 229,175,225; in 1852, 239,467,453; in 1853, 252,802,320; in 1854, 255,610,355. Were it not for the withdrawal of the North Staffordshire from the list of Companies publishing their traffic, the expenditures would appear to be about £260,000,000.

The average cost of the railways in operation per mile would appear to be in 1842, £34,690; in 1843, £36,360; in 1844, £35,670; in 1845, £35,060; in 1846, £31,860; in 1847, £31,709; in 1848, £34,234; in 1849, £35,214; in 1850, £35,229; in 1851, 35,058; in 1852, £34,730; in 1853, £35,101; and 1854, £35,014. The average cost per mile remain at about the same figure as in 1842, notwithstanding that many comparatively cheap lines have been added to the system since that date. In 1842 the average cost per mile was £34,690 and the receipts for traffic during the year was £3,113 per mile, while in 1854 the average cost was £35,014 per mile, and the receipts from traffic £2,604 per mile. This reduction in the receipts per mile occurred notwithstanding that the annual traffic receipts increased from £4,341,781 in 1842 to £18,541,855 in 1854, being an increase of traffic to the amount of £14,200,074, or at the rate of £1,183,339 per annum.

The traffic has increased during the past two years to the extent of £3,400,000, or at the average rate of £1,700,000 per annum. There is every probability that the railway traffic of the United Kingdom will go on gradually increasing as it has done since the commencement until the whole system is fully developed, and that in the course of seven years from the present time, it will amount to £30,000,000 per annum. An increase of £10,000,000 to the general capital account would be sufficient to provide additional working stock and station accommodation for the increased traffic. Estimating 45 per cent. for working expenses, rates, and taxes, or £13,500,000, there would remain £16,500,000 to pay interest on loans, preference charges, and a dividend on the ordinary shares of above 5 per cent. per annum.—This would of course be too happy a result for railway enterprise. The probability is that instead of the Shareholders being contented to confine themselves to an outlay of £10,000,000 for useful purposes, they will vote away either in person or proxy, at least £100,000,000 for the extension of

* In which a number of lines are not included.

their dominions, regardless of an increase of dividend.

The Shareholders are always ready to cast the blame of unprofitable outlay on the Directors, while they forget that it is by their own overwhelming votes in person, or by proxy, at meetings of the various companies, that the Directors are authorized to act in such matters, and to obtain the requisite sanction of the Legislature, regardless of expense. So long as shareholders continue to act in that way, the increased outlay on capital account will be sure to forestall the natural increase of railway traffic, and prevent the expected increase of dividend on the ordinary stock.

System of Transfers of Stock by the New York Central Railroad Company.

A report upon the subject of stock transfers and certificates has been made by the committee of the Directors of the Central Railroad—to which that subject was committed. We annex the plan, which appears to be well calculated to guard the company against fraud, and give capitalists confidence in their investments in the stock of this company. The principal feature in the plan appears to be a Registrar to receive old and issue new certificates independent of the transfer officer. This mode of transfers will cause some delay, but this must be submitted to for the sake of safety.

"The undersigned committee appointed to consider the subject of transfers of stock of the New York Central Railroad Company, have drawn from the plan of the Examining Committee, which was referred to them, the following, which they respectfully submit for consideration:

"At each place where transfers are made, there shall be an office for the transfer of stock, and a separate office for the registry thereof, and from which certificates shall be issued for the stock transferred.

"Certificates in the following form (see A) shall emanate from the office of the Company at Albany, and be sent to the respective Registrars, numbered and signed by the President and the Treasurer.

"All transfers must be made at the transfer office at which the stock is recorded, and where shall be kept, in addition to the transfer book, a stock ledger, to which reference shall be made on application to transfer, and from which a list of all transfers shall be sent to the office at Albany as often as required by the Treasurer.

"No transfer shall be allowed without a surrender and cancelment of the old certificate by the following endorsement thereon, to be signed by the person named in the certificate, or by his attorney.

"Cancelled and transferred to A. B., of—
"New York, Jan. 1, 1855." C. D."

Or if the certificate is for 100 shares, and only a part transferred—say fifty shares—the endorsement will be:

"Cancelled and transferred to A. B., of—fifty shares—; new certificate for the remainder to me.

"New York, Jan. 1, 1855. C. D."

The number of the certificates, and the number of the shares it represents, must be entered into the transfer.

The transfer books will be closed (as now) at 2 P. M., when the transfer officer will take to the office of the Registrar the certificates which have been surrendered, and for which transfers have been made, first having cancelled his own signature and that of the President. Certificates to be ready for delivery at the transfer office at 10 A. M. the day after the transfer. The Registrar on receiving the certificates from the transfer office, shall cancel his signature and that of the Treasurer, and shall make new certificates from the indorsements on those which he has cancelled, and shall retain the old ones as his vouchers for his signature to the new ones which he has made and delivered to the transfer agent.

For form of a certificate, see B, accompanying

this. He shall keep a book of register of all certificates he issues—that he may examine by it those returned to him—and from which he shall make a return of the same to the office at Albany as often as required by the Treasurer.

When any stockholder shall require his stock to be transferred from the books in which the stock stands to the books of any other office, the certificate must be surrendered by the holder thereof at the office from which it was issued, or at the office to which he wishes it transferred, that the transfer officer may send it with the following endorsement thereon:

"Surrendered for the purpose of having the stock transferred to my name on the books of the Company, at their office of transfer and register, in the City of— A. B.

"Jan. 1, 1855.

After the surrendered certificate has been examined and cancelled at the office from which it was issued, it shall be sent by the transfer officer to the transfer office, where it is required to be entered, bearing the indorsement of both the transfer agent and the registrar, stating that the same has been cancelled for the purpose named. The transfer agent will send it to the registrar, who will issue a new certificate therefor, and which the transfer agent will sign and enter on his stock-ledger.

Believing that the foregoing plan will not impede real transactions in the stock, and the capitalists and others seeking investments will regard it as giving increased security, your committee recommend that this or some similar plan be adopted.

Grand Trunk Railroad.

THE CONSUMMATION LEASE.—It is with no ordinary feelings of gratification that we are now able to announce the final consummation of the lease of the Atlantic and St. Lawrence Railroad to the Grand Trunk Railroad Company of Canada. This event, so full of interest, not only to the stockholders, the city of Portland, the State of Maine, but to the entire people of the United States and the British Empire, has taken place under circumstances so favorable to the parties concerned that a few words of comment may seem to be justified at our hands.

The property and franchise of the A. & St. L. R. Co., was on the 5th day of August, 1853, delivered over into the hands of Hon. William Jackson, of Birkenhead, England;—the Hon. John Rose, and Benjamin Holmes, Esq., of Canada, in Trust, with authority on their part to assign the Lease to the Grand Trunk Railway Company of Canada, on its obtaining authority to accept the same. This authority having been given, by act of the Provincial Parliament, Messrs. Ross and Holmes, for themselves and their colleague, Mr. Jackson, on Thursday the 8th inst., made the formal delivery over of the entire property of the company to Hon. Francis Hincks, who having been duly authorized therefor, accepted the same for, and in behalf of, the Grand Trunk Railway Company, in accordance with, and in fulfilment of the terms of the contract of Lease, for the term of 999 years. Notice of the assignment and delivery having been personally given to the Director of the A. & St. L. R. R., the instrument of Lease was consummated and perfected in all its terms and provisions.

A subsequent agreement was then entered into, by and between the two companies, under date of Feb. 10, 1855, by which the Grand Trunk Railway Company secured to itself the right to extend its improvements, capitalize the city debt and company's bonds issued to aid the construction of the line, increase its rolling stock, and eventually to provide a double track, as the exigencies of business should require. So that provision is made for the working of this line, expanding and enlarging its operations in the same manner and to the same extent as if it were part and parcel of the Grand Trunk Railway of Canada, saving only the perpetual guarantee of six per cent. per annum on all the stock of the company, and the fulfil-

ment of all the requirements of law, in its management, and in the maintenance of its organization.

A further provision was made for issuing the company's stock in sterling currency, at the option of the Grand Trunk Railway Company, and a meeting of the stockholders was ordered by the Directors, to obtain their acceptance of the act of Sept. 28th, 1853, providing for the conversion of the stock into sterling currency.

It will at once be perceived, that the working out of the details of so vast a system, required no small degree of labor, and no ordinary effort of legal skill; and it is therefore the more gratifying to know that every question was met and considered in all its relations, and that the agreements themselves were made mutually and reciprocally satisfactory.

On the 10th of February, 1845, the charter for the A. & St. L. R. R., became law in Maine by the approval of Gov. Anderson. By a somewhat singular coincidence, at the end of precisely ten years from that date, on the 10th of February, 1855, the line of Railway built under that charter became a part of the Grand Trunk Railway of Canada, receiving therefrom a guarantee that makes its cost a permanent six per cent stock for 999 years—constituting the most comprehensive line of railway system in the world, already in command of a capital exceeding \$50,000,000.—

State of Maine.

Improvements in Fox and Wisconsin Rivers.

The companies engaged in these have made considerable progress during the year. From the second annual report of the Directors, we extract the following statements of their receipts and expenditures.

RECEIPTS.

Sale of Company's Bonds.....	\$239,000 00
Sale of lands.....	18,123 04
Tolls and rents.....	882 58
Personal property.....	597 05
Bills payable.....	44,133 28
Back money to contractors.....	31,112 70
	\$333,848 66

EXPENDITURES.

On work between Lake Winnebago & Green Bay.....	\$177,084 01
State Indebtedness.....	123,480 81
Dredge boat expenses.....	3,697 93
Docks, warehouses, &c.....	16,922 42
Real Estate charges.....	303 00
Engineering, &c.....	4,287 36
Contingent expenses.....	3,623 42
Interest on bonds.....	4,449 71
	\$333,848 66

The work done and paid for, since the organization of the company, is as follows:

At Grand Chute.....	\$47,852 56
Cedar Rapids.....	8,665 80
Little Chute.....	60,403 57
Grand Kankana.....	42,650 94
Menasha.....	6,939 61

Total.....\$166,542 48

The cost of completing and putting in use these several improvements is estimated by the Engineer, as follows:

Grand Chute.....	\$10,031 65
Cedar Rapids.....	901 85
Little Chute.....	7,583 68
Kaukana.....	2,887 00
Menasha.....	10,884 65

Total.....\$32,388 83

The company it seems have bent all their energies to the improvement of the lower part of Fox river, and with such success that the work will be ready for use by the opening of naviga-

tion in spring. The work is said to be constructed of durable materials; and the style of execution will challenge comparison with any similar structure in the country. In fulfilment of their contract with the State, the company have paid off \$123,480 of the State indebtedness. They have ready for use, a large steamer, a freight propeller of 140 tons, and two freight barges of 200 tons each, besides another on the stocks.

Financial Condition of the Sunbury and Erie Railroad.

RECEIPTS.	Subscribed.	Amt. Paid.
From city Philadelphia.....	\$1,000,000	\$950,000 00
" Dist. of Richmond.....	250,000	250,000 00
" city of Erie.....	300,000	150,000 00
Subscriptions other than those from municipal corporations.....	2,381,500	759,172 00
Sales of lands of the company, and other sources.....		159,754 84
		\$2,268,926 84

In the above subscription are not included those of any counties, towns, or individuals upon which no instalment has been paid.

EXPENDITURES.

Engineering for the whole line of road.....	\$97,645 33
Land damages, right of way and land.....	73,323 34
Road contributions, and superstructures between Sunbury and Lockhaven, (30 miles of which are finished and in operation) including a large amount of work done, and materials for the remaining portion.....	1,561,502 33
Road construction West of Lockhaven.....	65,717 17
Interest and discounts on bonds....	70,191 58
Contingent expenses of all kinds....	60,108 45
Balance on hand Feb. 1, 1853.....	292,336 98
Total expenses.....	\$2,268,926 84

New Jersey Railroad and Transportation Company.

The Annual Report of the New Jersey Railroad and Transportation Company exhibits aggregate receipts of \$823,032, for the past fiscal year, viz: from Passengers \$652,192 00; from Freight \$73,116 40; from United States Mail, Rents, and other sources \$97,724 53.

The Expenses for the same period were: maintaining road, bridges and buildings, \$63,308 97; repairs of locomotives, cars and machinery, \$36,178 91; fuel—cost and labor in preparing, \$79,060 70; operating the road, and transporting passengers and freight \$196,724.74; office expenses, salaries and contingencies \$8,371 89; total expenses \$383,585 21.

Leaving a surplus of \$440,447 72, which has been appropriated as follows: interest on bonds, \$87,580 00; transit duty on passengers and freight \$17,519 85; tax on capital \$15,009 81; dividends in cash, August and February \$300,126 25; profit and loss 70,211 81.

The liabilities of the company are as follows: Capital Stock paid in, \$3,253,925; Funded Debt, (including \$485,000, the cost of the property and privileges purchased of the Jersey Associates) \$690,000; Floating Debt, (about \$70,000 of which since paid) \$108,596 95; profit and loss, surplus earnings, &c., \$91,187 46; dividend, 1st January, payable 1st February, 1855, 162,628 75. Total, \$4,306,338 16.

Assets, cost of railroad and equipments, graduation and masonry, bridges, &c., \$3,007,165 17; locomotives, tenders, and snow plows, \$106,247-34; cars—passenger, freight and baggage, \$126,180; bridge, ferry, stocks, real estate, ferry-boats, &c., \$968,585 08; cash in bank and cash items on demand, \$99,160 62. Total, \$4,306,338 16.

Statement of the Sacramento Valley Railroad.

The Directors of the "Sacramento Valley Railroad" desire to make known to the people of California their general plans, lest by silence their position may be misunderstood. While they regard with deep interest the contemplated construction of the Great National Road, the San Jose Road, and indeed, that of any undertaking honestly for the purpose of construction and not of speculation, they of course give their first preference to the one now under examination. They believe the Gold Mines to be at present the great and vital interest of California, and that the vast amount of passengers and freight daily passing back and forth warrant this undertaking. Nature has already provided us a free, open and cheap avenue, by water, from San Francisco to Sacramento, affording a means of transportation as cheap and almost as speedy as by a Railroad, which would have to make a circuit to San Jose and Stockton. We have, therefore, for the present assumed Sacramento as the starting point for rails, and have located the first division of the Road over a comparatively level country, to a point on the American River near Negro Bar, twenty-two miles from Sacramento. Here the Road crosses to the north, skirting the foot-hills, and absorbing the heavy trade of the rich mining counties of El Dorado, Placer, Nevada, and Yuba. The road will then run up the great Sacramento Valley; or if the surveys now being made show a practicable route, this road can be extended to the east into the mountains, so as to connect with any other rail or wagon road that may be under construction by the General Government, or by a responsible company.

The Board of Directors have, however, proposed to keep within the means at their disposal, and for the present limit themselves to the construction of forty miles of road, for which purpose a contract carefully drawn was made in San Francisco, on the 24th of November last, with Robinson, Seymour, & Co., contractors of New York, for the completion, construction, and equipment, within twelve months for the signing of the contract, of the first division, and six months thereafter for the second division, or balance of forty miles. The contractors take in payment \$800,000 in stock of the company, \$500,000 in the bonds of the company, having twenty years to run, and the remainder, \$500,000, in cash and notes, to be paid as the work progresses, and is accepted by the Engineer.

The subscription of stock in San Francisco, Sacramento, and Marysville, is already sufficient to enable the Board to fulfill the contract, so that all additional stock will go to the extension of the road. Parties feeling an interest in the matter are invited to visit the office of the company, over Lucas, Turner, & Co.'s Bank, San Francisco, where they can inspect the Surveys, Contracts, Subscriptions List, By-laws, and all the papers of the company, and that without being importuned to take a single share of stock. The Board of Directors have made no public calls of demonstrations, as they purpose within a year to have the locomotives to do their own puffing.

They have the means to pay the contractors as the work progresses, and the contractors have already purchased iron, cars, locomotives, cross-ties, etc., and are now ready, by their agent, to begin the grading as soon as the right of way is fully secured, and the location finally fixed by the Engineer. Had the city of Marysville taken the amount of stock agreed upon, the Board would have felt authorized to push the rails into their city; but for some reason best known to themselves, the city council has resolved to defer action until the first division of the road to Negro Bar is done. Several enterprising citizens of that place have, however, in part made up the deficit, in order to prevent speculation in stock, except to the contractors by way of payment, until the road is done. To subscribers, the treasurer gives his receipt for instalments when paid in. The following gentlemen compose the Board of Direc-

tors, and they will more fully explain the prospects of the road to applicants, viz:

OF SAN FRANCISCO.

C. L. WILSON, RICHARD CHENERY,
W. J. PARDEE, HENRY HAIGHT,
HENRY B. TRUETT, LEVI PARSONS,
C. A. McNULTY, W. T. SHERMAN,
E. W. BURR, M. F. TRUETT,

OF SACRAMENTO:

H. E. ROBINSON. W. H. WATSON.

JOHN C. HALL, of Marysville.

The officers of the company are:

C. L. WILSON, President.
W. T. SHERMAN, Vice Prest.
C. A. McNULTY, Secretary.
W. J. PARDEE, Treasurer.
T. D. JUDAH, Chief Engineer.

By order of the Board,
d18 C. A. McNULTY, Secretary.

Receipts for January.

The following is a comparative statement of receipts from passengers and freight, of the New York Central Road, during the month of January, 1854 and 1853:

	Passengers.	Freight.	Total.
1855....	\$169,540 58	\$252,898 24	\$421,938 82
1854....	161,233 87	174,128 27	335,362 14

Increase..\$8,306 71 \$78,269 97 \$80,576 68

The receipts of the Cleveland and Toledo Road, in round numbers, for

January, 1855, were.....\$61,000
January, 1854.....40,000

Increase over 50 per cent.....\$21,000

The receipts of the Baltimore and Ohio Railroad for January have been as follows:

	Main stem.	Wash. Br.	Total.
For passengers..	\$39,819.72	\$25,553.40	\$65,403.12
For freight.....	296,203.94	9,020.31	305,224.25

\$336,023.66 \$34,603.71 \$370,627.37

As compared with the corresponding month of 1855 we have the following result:

	Passengers.	Main stem.	Wash. branch.
January, 1855.....	\$336,023 66		\$4,603 71
January, 1854.....	253,277 10		24,394 04

Increase.....\$81,746 46 \$10,209,674

The earnings of the Michigan Central Road for December and January were as annexed:

	December.	January.
Passengers	\$68,768 19	\$55,582 30
Freight.....	62,528 94	60,275 48
Mails, &c.....	4,029 71	6,612 95

Total.....\$135,326 83 \$122,489 83
Previous year.....80,094 29 60,502 95

Increase.....\$55,232 54 \$61,986 88

Toledo and Illinois Railroad.

The Toledo and Illinois, and Lake Erie, Wabash and St. Louis Railroad Companies, have just concluded a negotiation for one million of their Second Mortgage Bonds. The Road from Toledo to Huntington (120 miles) is to be pushed forward at once, and opened for travel in June next. The expenditure thus far has been \$4,700,000; and for the total completion of the line (242 miles) the companies own the \$922,000 of First and \$1,000,000 of the Second Mortgage Bonds, which will, it is believed, furnish ample means. During all the severity of the times the Treasurer has negotiated \$2,400,000 of Bonds—none under 90 per cent. and accrued interest. We believe a bonus of 10 per cent. in stock was allowed on half a million of Bonds sold during the extreme pressure of August last. We congratulate our western friends on the prospect of an early completion of this highly important route.

Hammitt's Reclining Car Seat.

We have in this office a veritable specimen, of the full size, of this really valuable improvement, for which we are indebted to Mr. THOS. M. CASH, Philadelphia, the sale agent for its sale. The properties of this seat, which render it at once an object of attraction and comfort, are its adaptedness to a reclining or an upright posture, with the power to change the position by the mere volition of the occupant, without rising, and the facility with which it can be turned to face either end of the car. The occupants of the separate chairs are independent of each other, one being able to recline while the other may sit bolt upright.

It will be seen that it thus insures all the advantages of the present seats with the additional luxury of a couch for the weak, the invalid, the fatigued or the indolent. Besides this, it is not expensive; the first cost of a car furnished with this style of seats would be very little if any greater than one with those new in use.

The Philadelphia, Wilmington and Baltimore company have already furnished some of their cars with these couches which have met the most unqualified approval of the public.

For particulars, see the advertisement of Mr. CASH in another column.

Ohio and Pennsylvania Railroad.

The Cincinnati Gazette states that the progress of this road will not be materially interrupted by the failure of Messrs. Page & Bacon. We copy from it the following statement of the present condition and the estimated amount necessary to complete the Indiana division.

It is well known that this road has been in operation for several months past, as far as Seymour, a distance of eighty-eight miles from Cincinnati, and that the trains now run into the city as far as Wood street. Westward of Seymour, the distance to Vincennes is one hundred and five miles, and on this part of the road the work is steadily advancing. In the East Central Division, as it is termed, west of Seymour, there are forty-five and a-half miles, which embrace the heaviest work on the road, and extending three miles beyond the crossing of the New Albany and Salem road, at Mitchell. The first eleven and a-half miles from Seymour to Brownstown is so far completed, that an additional expenditure of less than \$10,000 will prepare the road for the iron, which, being completed, will open nearly one hundred miles of the road from Cincinnati, and a large increase of business will be derived, both in freight and passengers, without much additional expense, as the same trains would run the increased distance with the same conductors, engineers, &c. The balance of that division, thirty-four miles, requires an expenditure of about \$271,000 to prepare it for the iron, and must necessarily be the last to be finished, as there are two tunnels to be cut through this part of the road, the larger of which is about one-half accomplished and the smaller one-third.

The West Central Division, extending from three miles west of Mitchell to Vincennes, a distance of 59½ miles, is in a state of great forwardness, \$469,000 having been expended on that part of the road, and only \$252,000 are now required to prepare it for the iron. Thus it appears that the sum of \$533,000 will completely finish the road for the iron, and adding \$840,000 for the iron, we have an aggregate of \$1,373,000 required to finish the road, of which the company have on hand, and paid for, \$320,000 in iron, and the balance of \$1,053,000 is yet to be provided for out of its remaining resources, unsold bonds, subscriptions for stock, surplus land and its very valuable wharf property.

So far from the company's having sustained any

loss by the failure of Page & Bacon, the very reverse is the fact; since the misfortunes of those gentlemen occasioned the cancellation of the contract for construction, which now reverts to the management of the Directors of the road, who have promptly renewed the contracts with the same parties who were constructing the road, on terms satisfactory to all concerned.

We should suppose the failure of Page & Bacon to have been a serious misfortune to the company, as the progress which the road has already made has been mainly due to their efforts. How the necessary balance is to be raised, with second mortgage bonds selling at 55, does not appear.

Another Bogus Operation.

We understand the Michigan Central Railroad Company have taken a lease of what is termed the "Joliet cut off", so called from the fact that it unites the Rock Island and Michigan Central roads without going into Chicago. This line of road was built as a sell to somebody, and the Central company were greedy and green enough to take the bait. The rent paid is two thousand dollars per mile on some 25 miles, certainly twice as much as it is worth. In fact, we do not see how the road can be worth anything. Where are the stockholders of this company that they are not looking after the directors?

Panama Railroad.

This important work has at last been completed, and the continent is now traversed by railroad from ocean to ocean! The value of such a work to the commerce of the world can hardly be overestimated. The terrors of a voyage to the Pacific coast of the continent, are almost entirely dissipated, and California is now brought to our very doors.

Connecticut River Railroad.

The annual report of the Connecticut River Railroad Company shows that the receipts from passengers for the year ending December 1st were \$135,960 against \$133,655 for the preceding year, and from freight \$130,508 against \$113,794 for 1853, and the total receipts for the year 1854 were \$277,779, against a total of \$258,221 for 1853. The expenses were \$190,946, including \$16,118 paid for interest on debt, and \$30,000 for rent of the Ashuelot Railroad running from South Vernon to Keene. The net revenue for the year has been \$86,823, yielding a dividend of $4\frac{1}{2}$ per cent. on the old or unpreferred stock. The same causes which have been absorbed all the increase of gross receipts upon other railroads have had the like effect upon this. Its expenses have been largely increased by the increase cost of fuel, labor and materials. In consequence of this, the way fares have been raised from three to four cents a mile, an average advance of about fifteen per cent. has been established upon its old prices for freight and passenger transportation. The whole number of passengers carried over the road in 1854, was 349,925; in 1853, 2337,000; in 1852, 290,000. The number of tons of freight transported in 1854, was 102,850; in 1853, 89,920; in 1852, 73,216. These relative numbers convey an idea of the healthy growth of business in the Connecticut river valley.

Cobourg and Peterboro Railroad, Canada.

The Cobourg and Peterboro Railroad was opened a few days since, and twelve cars, drawn by two locomotives, conveyed 1,000 persons from Cobourg to Peterboro, where congratulatory addresses were delivered by the Mayors of both places on behalf of the citizens, and a large company were entertained at a sumptuous dinner in the Town Hall. The bridge across Rice Lake was thoroughly tested on the occasion, and is said to be a solid, durable structure.

NEW YORK STATE CANALS.—NOTICE TO CONTRACTORS.—In pursuance of a resolution of the Contracting Board, notice is hereby given, that sealed proposals will be received by the undersigned for the construction and completion of the work upon the several Canals of this State, described in the following tabular statement at the times and places therein mentioned:—

ENLARGEMENT OF THE ERIE CANAL—EASTERN DIVISION.

Sealed proposals will be received at the Engineer's Office in the city of Utica, until Monday, the 12th day of February next, at 11 o'clock in the forenoon, for the following described work, to wit:—

Description of work.	Amount of penalty in bond.	Time of completion.
Section 30.....	\$6,700..	April 1st, 1857.
" 31.....	6,000..	" " 1857.
" 32.....	3,600..	Aug. 1st, 1855.
" 33.....	8,200..	April 1st, 1857.
" 34.....	2,000..	" " 1856.
" 35.....	4,400..	" " "
" 40.....	2,700..	" " "
" 78 and Section No.2 of Rocky Rift Feeder ..	10,000..	" " "
" 83.....	4,100..	" " "
" 84.....	1,200..	" " "
" 129.....	7,400..	" " "
" 1 Rocky Rift Feeder	2,000..	" " "
" 3 do.....	3,600..	" " "
Lock No. 24.....	5,500..	July 1st, 1857
" 32.....	6,300..	" " "
" 39.....	6,600..	" " "
" 41.....	6,200..	" " "
Bridge Abutments on sections 31, 32, 33 and 35.	1,700..	" " 1856.
Do. do. on sections 44, 45 and 56.....	1,300..	" " "
Do. do. on sections 69, 70 and 76.....	2,200..	" " "
Do. do. on sections 77, 79 80 and 84.....	2,100..	" " "
Do. do. on sections 101, 102 and 103.....	2,100..	" " "
Do. do. on sections 104, 106 and 113.....	2,000..	" " "
Culverts on sections 20, 33 and 34.....	1,400..	" " "
Do. on sections 85 and 40.	1,300..	" " 1855.
Waste Weir on Section 30	1,000..	" " 1856.
Dam and Bulk Head for Rocky Rift Feeder....	2,100..	April 1st, "
Culvert under Castle Creek for Rocky Rift Feeder.	2,100..	" " "
Culverts, Bridges & Towing Path Bridge and Drop for do.....	1,500..	" " "
Iron Bridge Superstructure for Main street Bridge, Fultonville....	450..	" " 1855.

BLACK RIVER CANAL.

Sealed proposals will be received at the Engineer's Office at Lyons Falls, until Wednesday, the 14th day of February next at 9 o'clock in the forenoon, for the following described work:—

Clearing and Snagging $42\frac{1}{2}$ miles of Black River from Lyons Falls to Carthage, constructing eight Jetty Dams and Piers, and Dredging the first eight miles of Black River, below Lyons Falls.....	\$14,000..	Aug. 1st, 1856.
Valve Gates for Locks Nos. 98 to 108 inclus..	500..	July 1st, 1855.

ENLARGEMENT OF THE ERIE CANAL—MIDDLE DIVISION.

Sealed proposals will be received at the Engineer's Office, in the city of Syracuse, until Thursday, the 15th day of February next at 12 o'clock A. M., for the following described work, to wit:—

1 Iron Superstructure for Bridge at Montezuma

with penalty in bond of \$300. To be completed the 15th of April, 1855.

ENLARGEMENT OF THE ERIE CANAL—WESTERN DIVISION.

Sealed proposals will be received at the Engineer's Office, in the city of Rochester, until Friday, the 20th day of February next, at 9 o'clock A. M., for the following described work, to wit:—

Description of the work.	Penalty in bond.	Time of Completion.
Section 245.....	\$5,800..	April 1st, 1857.
" 246.....	6,000..	" " "
" 247.....	5,700..	" " "
" 248.....	7,000..	" " "
" 249.....	6,800..	" " "
" 250.....	7,100..	" " "
" 251.....	6,200..	" " "
" 252.....	7,300..	" " "
" 253.....	9,000..	" " "
" 254.....	4,800..	" " "
" 255.....	6,200..	" " "
" 256.....	19,000..	" " "
" 257.....	11,000..	" " "
" 258.....	13,400..	" " "
" 259.....	10,800..	" " "
" 260.....	7,000..	" " "
" 261.....	5,400..	" " "
" 262.....	6,800..	" " "
" 284.....	7,000..	April " "
" 289.....	22,500..	" " 1857.
" 290.....	9,200..	" " 1856.
" 296.....	7,800..	" " "
Lock 65 and Reducing Lock 64.....	5,600..	" " 1857.
Lock No. 66.....	5,500..	" " "
Waste Weirs on Sections 245 to 262, inclusive....	1,000..	Nov. 1st, 1856.
Waste Weir on Section 289.	500..	" " 1855.
Bridge Abutments on Sections 245 to 252, inclus..	3,200..	April 1st, 1857.
Bridge Abutments on Sections 253 to 262, inclus..	3,400..	" " "
Bridge Abutments on Section 289.....	600..	" " 1856.
Bridge Abutments on Section 369.....	500..	" " 1855.
Culverts on Sections 245 to 256, inclusive.....	9,000..	Nov. 1st, 1856.
Culverts on Sections 257 to 262, inclusive.....	2,500..	" " "
Culverts on Sections 284 and 289.....	6,500..	" " 1855.
Medina Aqueduct Section 320.....	800..	April 1st, 1855.
1 Iron Superstructure for Glasgow street Bridge, Clyde.....	500..	May 1st, 1855.
1 do. for Sodus st., Clyde..	500..	" " "
1 do. for Church st., Lyons.	600..	June 1st, "
1 do. for Monroe street, Rochester.....	500..	May 1st, "
1 do. for Shelby st., Medina	520..	" " "
1 do. for Amherst street, Buffalo.....	640..	" " "
1 do. for Ferry st., Buffalo.	760..	" " "

The Culvert for the Irondequoit Creek on Section 256 must be completed by April 1st, 1856.

All propositions must be for a sum certain, as to the price to be paid or received, for each and every kind of work; and no proposition not thus defined will be received or acted upon; and no proposition will be considered complete unless a price for every kind of work included in such proposition is distinctly and plainly inserted.

Every proposal shall be accompanied by an affidavit, endorsed thereon, of each person uniting in such proposal, that he is not directly or indirectly interested in any other proposal for the same work or materials, or any part of the same; that he has no agreement or understanding with any other person to become interested in any other proposal or contract for the same work or materials, or any part thereof; and that no other person than such as shall be named in the proposal is interested in the same, or has any agreement or understanding to become interested in

any contract that may be made in pursuance of such proposal.

Every proposal for work or materials embraced in the above statements shall be accompanied with a bond to the people of this State, in the penalty specified opposite each kind of work in said statement, and which bond shall be signed by the party making such proposal and two or more responsible sureties, with such evidence of their responsibility as the contracting board shall require, and which sureties shall justify in sums equal in the aggregate to twice the amount of such penalty.

Each proposal must be accompanied by the certificate of the Supervisor of the town, and the County Clerk, or the County Judge of the county in which said surety shall reside, or any two of them, as to the responsibility said sureties.

The persons to whom the work may be awarded will be required by the contracting board to give the bond for the payment of laborers' wages, as required by chapter 278, of the laws of 1850.

No acceptance of a proposal or award of a contract by the contracting board, and no contract made by the said board, or any interest in the same, shall be assignable to any person or persons, without the written consent of the Canal Commissioners.

Fifteen per cent. of the amount of any work done or materials furnished, at the contract price thereof, shall be reserved by the Canal Commissioner until the whole work, which is the subject of the contract, shall be fully and entirely completed.

In case the contracting board shall be of opinion that the proposals made at any meeting thereof, pursuant to any advertisement, are, in consequence of any combination or otherwise, excessive and disadvantageous to the State, they may decline all the said proposals, and advertise anew for the work and materials embraced therein.

Contractors will be required to receive and use in the work all such materials as have been previously procured and delivered for any of the above work, and allow such prices therefor as may be exhibited at the several offices prior to the letting.

The prices in the contract will be considered as including the expense of furnishing all the materials, and performing all the work, according to the plans, specifications and notices exhibited at the letting.

The persons to whom the work may be awarded, will be required to enter into contract for the performance of the work within ten days after the same shall have been awarded to them, upon the terms prescribed by the contracting board.

The name or names of the persons proposing, must be written out in full, with their places of residence.

The maps, plans, specifications, quantities of materials, propositions, blank contracts and bonds will be ready for examination at the several places specified in this notice, ten days previous to the time specified for the several lettings.

In all proposals where the figures used are of a doubtful construction, such proposal will not be canvassed.

Dated at ALBANY, January 12th, 1855.

HENRY FITZHUGH,
FREDERICK FOLLET,
CORNELIUS GARDINIER, } Canal Comm'rs.

JAMES M. COOK, Comptroller. [S. 4t
JOHN T. CLARK, State Eng. and Surveyor.

The letting of the above work, on the Western Division, with the exception of the Bridge Superstructures, Medina Aqueduct and Bridge Abutments on Section No. 369, is postponed until Thursday, the 22nd day of March next, then to take place at the hour and place designated above.

Albany, Feb. 9th, 1855.

HENRY FITZHUGH,
FREDERICK FOLLET,
CORNELIUS GARDINIER, } Canal Comm'rs.
JOHN T. CLARK, State Eng'r and Surveyor.
JAS. M. COOK, Comptroller.

Railroad Iron Wanted.

THE Undersigned invites proposals till the 27th day of February next, for the supply of about nine (9) thousand tons of heavy iron, for the "Norfolk and Petersburg Railroad."

Delivery to be made at Norfolk, Virginia, between the first of November next and the middle of June following, and at the rate of twelve (12) hundred tons per month.

It is contemplated to use Latrobe's three-part (compound) rail, and bids are solicited, based upon a supply of it and of the U pattern also.

WILLIAM MAHONE,
Chief Eng'r N. & P. R. Co.

Engineer Office, NORFOLK, Jan'y 1, 1855. 2.6t

New York and Erie R. R.

On and after Monday, Dec. 25th, and until further notice
PASSENGER TRAINS
will leave Pier foot of Duane street,
as follows, viz:—

BUFFALO EXPRESS, at 7 a.m. for Buffalo.
DUNKIRK EXPRESS, at 7 a.m. for Dunkirk.
MAIL, at 8 1/2 a.m. for Dunkirk and Buffalo, and intermediate stations.—Passengers by this train will remain over night at any Station between Binghamton and Corning, and proceed the next morning.

WAY PASSENGER, at 4 p.m., via Suffern for Piermont and intermediate stations.

NEWBURGH EXPRESS, at 4 p.m. for Newburgh.

WAY PASSENGER, at 4 p.m., for Otisville, and intermediate stations.

NIGHT EXPRESS, at 5 p.m. for Dunkirk and Buffalo.

EMIGRANT, at 5 p.m., for Dunkirk and Buffalo and intermediate stations.

On Sundays only one Express Train—at 5 p.m.

These Express Trains connect at Elmira, with the Elmira & Niagara Falls Railroad, for Niagara Falls, at Buffalo and Dunkirk with the Lake Shore Railroad for Cleveland, Cincinnati, Toledo, Detroit, Chicago, etc.

47 tr. D. C. McCALLUM, General Supt.

For Sale.

THE ROSSIE FURNACE AND FOUNDRY, &c., St. Lawrence County, N. Y.—This well known establishment, having attached to it a large and complete Casting House and Machine Shop, with ample accommodations for workmen, and every convenience necessary to the prosecution of an extensive business, together with valuable Iron Mines and Mining Rights, also Timber Lands, is offered for sale by the proprietor, who retires from the business. The capacity of the Rossie Furnace for making iron, is believed to be unsurpassed by any charcoal Furnace in the country, having repeatedly run up to fourteen tons per day, with 55 to 60 per cent. yield from ores—specular red oxides—coal, per ton, 100 bushels. The same has been in uninterrupted operation for over twenty years, and the reputation of its iron is established throughout the West. The location of these works is in the village and town of Rossie, county of St. Lawrence, N. Y., six miles from the River St. Lawrence, and connected therewith by a plank road. Their cost, apart from premises and water power, has involved an expenditure of over \$100,000, and their present efficiency, in every respect, is considered unexceptionable. For further information apply to D. W. Baldwin, Agent, at the works, or to the undersigned.

G. PARISH.

Ogdensburg, N. Y., April, 1853.

5.3ms.

For Sale.

BY the Baltimore and Ohio Railroad Company, 24 crate cars adapted to railroad purpose, which will be sold at a reasonable price. For further information, apply to
SAMUEL J. HAYES,
M. of M., Baltimore and Ohio R. R. Co.,
or, BRIDGES & BRO.,
64 Courtland st., New York.

19 tr

Philadelphia, Wilmington & Baltimore Railroad.

UNITED STATES MAIL ROUTE TO THE
SOUTH AND WEST.

Trains will leave the Southern and Western Station, corner of Broad and Prime streets, Philadelphia, at 8 30 a.m. 12 45, 3 and 11 p.m.

FARE BY THROUGH TICKETS TO THE SOUTH.

From New York to Wilmington	\$15 50
do do Norfolk	8 50
From Philadelphia to Wilmington	14 00
do do Norfolk	6 50
do do Petersburg	9 00
do do Richmond	8 00

FARE BY THROUGH TICKETS TO THE WEST.

From New York to Cincinnati	\$13 50
do do Louisville	14 50
From Philadelphia to Cincinnati	11 00
do do Louisville	12 00
From New York to Indianapolis	16 00

An extra charge will be made for meals and state rooms on board the boats.
S. L. SPAFFORD,
General Supt.

27 tr

Winans' Variable Exhaust.

Baltimore, December 26, 1854.

Mr. H. V. POOR, Ed. RAILROAD JOURNAL.

Sir,

I beg leave to inform you that there was granted to me on the 20th November last, an exterior for seven years from the 26th November, 1854, of the Letters Patent heretofore granted to me on the 26th day of November, 1840—for an "improvement in the mode of regulating the Waste Steam in Locomotive Engines," usually known as the VARIABLE EXHAUST.

Without encumbering this notice with the specification in length, I subjoin below the claim thereof,

And remain, very respectfully,
Your obedient servant,

ROSS WINANS.

"As already observed, there may be many contrivances for opening and closing the orifices of the pipes, besides the two above described; these two, however, will answer the purpose, and illustrate my object. I do not claim the plan of increasing the natural draught, by causing the steam from the cylinders to enter the chimney through diminished orifices, but I do claim as my invention, desiring to secure the same by Letters Patent, the plan of increasing or diminishing the force with which the Steam from the cylinders enters the chimney, at the PLEASURE OF THE ENGINE-MAN, WHILE THE ENGINE IS IN USE OR MOTION, by enlarging or contracting the orifices of the escape pipes, increasing or diminishing thereby at PLEASURE the draught of the chimney, in the manner above set forth; not intending by this claim to limit myself to the precise arrangement of the respective parts, as herein described, but to vary the same as I may think proper, whilst I attain the same end by means substantially the same."

Witnesses:

ROSS WINANS.

THOS. P. JONES,

GEO. WEST.

[4.4t.

British Advertising Agency.

ADVERTISEMENTS and Communications received for all the London, Provincial and British Colonial Newspapers, by the undersigned at their Office, 11 Clements Lane, Lombard st., London. ALGAR & STREET.
English Newspapers supplied.

To Land Claimants in Texas.

If you have any business in relation to Lands in Texas address
W. B. STOUT, Clarksville, Red River County, Texas, and it will be attended to promptly. 1.1y

Boiler and Tank Rivets, Nuts and Washers;

All Sizes of

Bolts and Bolt Ends

for Sale by

BRIDGES & BROTHER,

64 Courtland st., N. Y.

Locomotives for Sale.

THE Subscriber offers for sale the following Locomotives and Tenders, suited for a 5 feet gauge.

One very superior 18 ton Passenger Engine. Driving Wheels.

5 1/2 feet diameter with 8 wheel tender.

One very superior 16 ton Freight Engine. Driving Wheels.

4 feet diameter with 8 wheel Tender.

The above machines are from one of the best shops in the country, built and finished in the best manner, and can be delivered in ten days from receipt of order. To any company in want of such machines, these are recommended.

For Price, terms, &c., apply to THOS. M. CASH,

Philadelphia Railway Agency.

No. 80 South Fourth st.

PHILADELPHIA.

49 8t

For Sale.

A LOCOMOTIVE ENGINE and Tender, Cylinders 12x20. Four driving wheels, 4 ft. 6 in. diameter, 4 wheel Truck, 6 wheel Tender and will hold 1,400 Galls. of water, suited for a gauge of 4 ft. 8 1/2 in. Engine will be put in complete order and sold low for good Railroad Bonds.

CLARK & JESUP, General Railway Agents,
38 Exchange Place.

6.4t

WANTED, STUDENTS in ENGINEERING, SURVEYING and DRAFTING.—Four or five active young men of intelligence, clever habits, and good education, who may desire to perfect a course of studies and gain a knowledge of the above pursuits, may find an instructor and employer by addressing, in their own hand, with references, Box 177, Cumberland, Maryland.

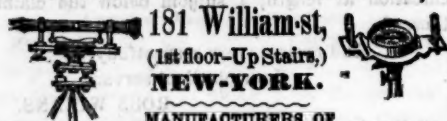
Terms: First year, tuition in the office and field, use of instruments and scientific library, with \$50 pay for services; second year, advance in pay. 6.3ms

To Civil Engineers and Surveyors.

TRANSITS, Level and Surveyors' Compasses Manufactured on the most improved principle and of the Best Quality by **THOMAS HUNT**, No. 53 Fulton Street, New York.

1y10*

SHANAHAN & LOEBER,



181 William-st,
(1st floor—Up Stairs.)
NEW-YORK.

MANUFACTURERS OF

THEODOLITES, TRANSITS, LEVELS, Surveyors' Compasses, Drawing Instruments, Chains, Scales, Levelling Rods, &c. 1y10

Notice to Contractors.

NASHVILLE AND NORTH WESTERN RAILROAD.

PROPOSALS will be received at the office of the Nashville and North Western Railroad Company, for the graduation and masonry of said Road in sections of twenty or thirty miles.

The Company reserve the right to reject all the Proposals if none are satisfactory.

The length of the Road is one hundred and sixty miles, and Proposals, are invited from contractors of ability for the entire work, including track, stating what amount of Bonds, Stock and Cash will be received in payment.

Any information required can be received by application to

N. MACNEALE, Chief Engineer.
NASHVILLE, Tennessee, 25th January, 1855. 4t.5

Notice to Contractors.

PROPOSALS for Masonry will be received until the 15th of February, 1855, for the construction of about 7,000 cubic yards of Bridge and Culvert Masonry, said masonry is in the vicinity of Norfolk and also of Petersburg on the Norfolk and Petersburg Railroad. For further information inquire of **WM. MAHONE, Esq.**, Chief Engineer, Norfolk, Va., or to the undersigned at Petersburg, Va.

DAVID BISSET.
January 24th, 1855. 5.3t

LAWRENCE SCIENTIFIC SCHOOL, Harvard University.

THE next Term of this Institution will open on the first day of March, 1855, and continue twenty weeks.

Instruction by Recitations, Lectures and Practical Exercises, according to the nature of the Study, will be given in:

Astronomy.....	by Messrs. Bond.
Botany.....	" Prof. Gray.
Chemistry, Analytical and Practical.	" " Horsford.
Comparative Anatomy and Physiology.....	" " Wyman.
Engineering.....	" " Eustis.
Mathematics.....	" " Pierce.
Mineralogy.....	" " Cooke.
Physics.....	" " Lovering.
Zoology & Geology.....	" " Agassiz.

For further information concerning the School, application may be made to Prof. E. N. Horsford, Dean of the Faculty.

CAMBRIDGE, Mass., Jan'y, 1855. 6.4t

Lithography.

G. WEISSENBORN, Civil Engineer and draughtsman 131 Fulton St. up stairs; also gives his attention to the engraving of maps and machinery on stone. Locomotives are neatly lithographed at this establishment on the most reasonable terms.—Orders are solicited. 60.1t

ENGINEERS.

Atkinson, T. C.,
Mining and Civil Engineer,
Alexandria, Va.

Barnes, Oliver W.,
Chief Eng. Pittsburg and Connellsville R.R. Co., Pittsburg, Pa.

Edward Boyle,
Chief Engineer, 2d, 3d, and 9th Avenue Railroads New York
Office 123 Chambers st.

Clement, Wm. H.,
Little Miami Railroad, Cincinnati, Ohio.

Cozzens, W. H.,
Engineer and Surveyor, St. Louis, Mo.

Alfred W. Craven,
Chief Engineer Croton Aqueduct, New York.

Charles W. Copeland,
Steam Marine and Railway Engineer,
64 Broadway, New York.

Davidson, M. O.,
Civil and Mining Engineer, Baltimore, Md.

C. Floyd-Jones.,
Division Engineer 3d and 12th Divisions.
ILLINOIS CENTRAL RAILROAD.
Vandalia, Ill.

Gay, Edward F.,
Civil Engineer, Philadelphia, Pa.

Gilbert, Wm. B.,
Syracuse and Binghamton Railroad, Syracuse, N. Y.

Gzowski, Mr.,
St. Lawrence and Atlantic Railroad, Toronto, Canada.

Grant, James H.,
New Orleans and Nashville R. R., Natchez, Tenn.

Holcomb, F. P.
Chief Eng. Augusta and Waynesboro, and Savannah and P. n. S. C. Railroads, Marlborough, Macon Co., Ga.

S. W. Hill,
Mining Engineer and Surveyor, Eagle River,
Lake Superior.

Huger, T. P.,
Northeastern Railroad, Charleston, S. C.

D. Mitchell, Jr.,
Chief Engineer Pittsburgh and Steubenville, and Chartiers Valley Railroads, Pittsburg, Pa.

Samuel McElroy,
Assistant Engineer, New York Navy Yard.

Mills, John B., Civil Engineer,
Sackets Harbor and Saratoga R. R., 24 William St., N. Y.

Morris, Ellwood,
Engineer and Agent DAUPHIN & SUSQUEHANNA CO.,
Cold Spring, Lebanon Co., Pennsylvania.

Septimus Norris,
Civil and Mechanical Engineer, Philadelphia.

Saml. & G. H. Nott,
Civil Engineers, No. 6 Niles' Building, Change Avenue, Boston.

Osborne, Richard B.,
Civil Engineer, Office 73 South 4th st., Philadelphia.

Prichard, M. B.,
East Tenn. and Georgia Railroad, Knoxville, Tenn.

W. Milnor Roberts,
Chief Engineer Alleghany Valley Railroad, Pittsburg, Pa.

Shanly, Walter,
Chief Engineer Bytown and Prescott Railway,
Prescott, Canada.

Roberts, Solomon W.,
Ohio and Pennsylvania Railroad, Pittsburg, Pa.

Sanford, C. O.,
South Side Railroad, Virginia.

Straughan, J. R.,
Ohio and Indiana Railroad, Bucyrus, Ohio.

Steele, J. Dutton,
Pottstown, Pa.

Charles B. Stuart,
Civil Engineer, New York.

Edward W. Serrell,
Civil Engineer, 157 Broadway, New York.

Trautwine, John C.,
Civil Engineer and Architect, Philadelphia.

Troost, Lewis,
Alabama and Tennessee Railroad, Selma, Ala.

A. B. Warford,
Chief Engineer, Susquehanna Railroad, Harrisbu Pa.

Whipple, S.,
Civil Engineer and Bridge Builder, Albany, N. Y.

Wm. J. Young
HAS removed his Engineering and Surveying Instrument Manufactory to No. 33, North Seventh Street, Philadelphia.

BUSINESS CARDS.

Railroad Instruments.

THEODOLITES, TRANSIT COMPASSES AND LEVELS on a new principle, with Fraunhofer's Munich Glasses, Surveyors' Compasses, Barometers, Chains, Drawing Instruments, etc., all of the best quality and workmanship, for sale at unusually low prices by **E. & G. W. BLUNT**, New York, Dec. 1, 1851. No. 179 Water street.

James Herron, Civil Engineer,
OF THE UNITED STATES NAVY YARD,
PENSACOLA, FLORIDA.,

PATENTEE OF THE HERRON RAILWAY TRACK
Models of this Track, on the most improved plan may be seen at the Engineer's office of the New York & Erie Railroad

W. G. ATKINSON,
MINING ENGINEER, SURVEYOR AND DRAFTSMAN
CUMBERLAND, MARYLAND,
Will attend to business in his Profession in the Coal Region as vicinity.

REFERENCES:
Jerry Cowles, Esq., New York.
Col. Wm. Young, do.
Jas. W. McCulloch, Esq., late U. S. Treas., Washington.
June 25, 1853.

H. SAWYER
(of the late firm of SAWYER & HOBBS),
Manufacturer of Transits and Levels,
HAS removed to Union Place near Warburton Av., Yonkers. N. Y.

J. S. Sewall,
CIVIL ENGINEER,
ST. PAUL MINESOTA.

PHILADELPHIA RAILWAY AGENCY
AND
General Furnishing Depot
OF ALL ARTICLES REQUIRED BY
RAILROAD COMPANIES,
No. 80 South Fourth street,
PHILADELPHIA.

Railroad Chairs, Railroad Spikes, Car Wheels, Car Axles, Boiler and Tank Rivets, Bolts, Nuts, Washers, Car Lanterns and Lamps, Conductors' Lanterns, Car Findings &c., &c.,	Engineers' Lanterns, Locomotive Head Lights, Car and Switch Locks, Jack Screws, Vices, Patent Oil Cans, Steam Gauges, Steam Whistles, Spring Balances,
---	---

ALL orders promptly filled at manufacturers' prices and forwarded with despatch. Particular attention paid to contracting for Locomotives, Cars, Railroad Iron, &c.

The subscriber being Agent for several manufacturers of Machinists' Tools is enabled to furnish Railroad Companies with Lathes, Planing Machines, Drills, &c., of the best quality at manufacturers' prices.—Orders solicited

50 1y THOS. M. CASH.

BUFFALO CAR COMPANY.

THIS Company having now completed their extensive Car Works are filling orders for the construction of PASSENGER BOX, BAGGAGE, PLATFORM and CATTLE CARS of the most approved style and finish. The works have connections with the various lines of railway east and west, which gives them all required facilities for the delivery of cars in every direction.

Orders are respectfully solicited, address to the
BUFFALO CAR COMPANY,
Office 37 Pearl st., Buffalo, N. Y.